

PSYCHOSOCIAL MEDICINE

A STUDY OF THE SICK SOCIETY

By

JAMES L. HALLIDAY, M.D., D.P.H.



LONDON

WILLIAM HEINEMANN • MEDICAL BOOKS • LTD

1949

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First Edition 1948
Reprinted . 1949

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Introduction

THIS STUDY in psychosocial medicine is based on the application of the concepts of psychosomatic medicine to the illnesses of communities and social groups. The term "psychosomatic medicine" refers to the practice of supplementing, but not supplanting, physical techniques of medical investigation with psychological ones. In other words, the individual or patient is regarded not only in terms of a body (or *soma*) that reacts to environment in its physical, chemical, and micro-organic aspects but also in terms of a "life" (or soul, or *psyche*) that reacts to environment in its psychological (or social) aspects. The intention of the name "psychosomatic" is therefore clear. It signalizes the simultaneous employment of two viewpoints of one and the same object, namely the individual, and in spite of initial objections to its coinage, it is now accepted as current usage. Psychosomatic medicine refers secondly to the knowledge that may be acquired by adopting this method of approach.

The psychosomatic approach is applicable to persons suffering from any illness, but its usefulness varies quantitatively between different kinds of illness. At one extreme (as in smallpox or measles) its findings are usually of little relevance and the nature of "the disease" and its causes can be more or less understood (i.e., they "make sense") when viewed in terms of the somatic approach alone. At the other extreme the findings

are of the highest relevance in that they furnish a new insight into the nature and "causes" of many common incapacitating disorders and thereby provide further guidance for treating and preventing them.

A group, like an individual, may be viewed both physically and psychologically. In its physical aspects a group appears as a population with material needs, such as food, shelter, clothing, nursing care, and freedom from infectious diseases. If these needs are not satisfied its "physical health" declines and the group becomes a *sick population* characterized by high rates of sickness and death due to reasons such as malnutrition, infectious diseases, infestations, and so on. In its psychological aspects a group appears as a society with psychological or social needs. If these needs are not satisfied its "psychological health," which is also its "social health," declines and the group becomes socially sick, that is, a *sick society*. The medical approach to the study of the sick society is called "psychosocial medicine."

I should have preferred to use the term "social medicine." Unfortunately, this term has a very floating meaning at present, being used in Europe as a synonym for state-controlled medicine and in Britain as an alternative to preventive medicine in all its aspects. I was also debarred from "social psychology," a term employed by nonmedical psychologists to describe psychological aspects of social phenomena, many of which, however, are of little direct interest to medicine. Indeed, textbooks bearing this title frequently give little or no attention to those aspects which to medicine are most important. I have therefore adopted "psychosocial medicine" as the most suitable name to cover the matters discussed. Although somewhat jargonish, it has the merit not only of being correct but of avoiding the ambiguities or limitations of the other terms. Still, I

do regret that the much neater "social medicine" has been cornered by others.

This book describes how the employment of psychosomatic and psychosocial medicine leads step by step to the recognition of social sickness with its many and diverse manifestations. It indicates how the presence of social sickness may be recognized and show that this "disease" is the gravest threat to health, both public and private, in our times. Awareness of the sick society and the ability to recognize it are, however, the first steps toward its prevention. These matters are not widely known, and how they have been determined cannot be appreciated in the absence of an adequate discipline for thinking. For this reason the first chapter has been devoted to an account of the "logic of cause," known in medicine as etiology.

But the concept of the sick society concerns not only medicine. It provides a fresh insight into the meaning of many twentieth-century events, both inner and outer, whose underlying significance is missed when interpreted only in terms of economics, politics, or history. Seen from the new medical standpoints those events become revealed as surface manifestations of a deeper biological change tending toward progressive devitalization. This conclusion is so important and the evidence for it so little understood that I hope this book will be read and debated not only by doctors but by all who realize that something very peculiar has happened to, and is happening to, modern western man.

The material of the book is largely derived from a series of original researches—clinical, statistical, and methodological—that employed the psychosomatic approach. The results of some of these explorations appeared from time to time in various medical periodicals during the past ten years and I am in-

debted to the editors of the *British Medical Journal*, the *Lancet*, the *British Journal of Medical Psychology*, and *Psychosomatic Medicine* for permission to quote passages from those articles. The stimulus to summarize my present conclusions in the form of a wider account was provided by encouragement received from a number of medical friends, notably John Rickman, Editor of the *British Journal of Medical Psychology*; A. T. M. Wilson, Director of the Institute of Human Relations at the Tavistock Clinic, London; J. M. Mackintosh, Dean of the London School of Hygiene; and T. Ferguson Rodger, Chief Psychiatric Adviser to the Scottish Board of Control; and also from American correspondents, including Karl Menninger of Topeka, Edward Weiss of Philadelphia, and Flanders Dunbar of New York. Finally, I should like to thank my friends Alan Gregg of the Rockefeller Foundation and Carl Binger for their understanding and helpful suggestions. To these and many others who have shown interest in this work I am most grateful.

Glasgow, Scotland, 1946

J. L. H.
New York, 1947

PART ONE

Medical Logic

CHAPTER 1

Some Principles of Etiology

MEMBERS of the medical profession are becoming increasingly separated in function, and the outlook of each is tending to be constricted to some partial or special view. As a result there is a tendency to ignore the underlying system of medical thought which unifies our diverse observations and activities and enables us to place them in a proper setting and perspective. The same idea is sometimes expressed by saying that modern medicine is analytic rather than synthetic. Or as T. S. Eliot¹ puts it: "Where is the knowledge we have lost in information?" In this chapter an attempt is made to provide an elementary synthesis based upon the consideration that all medical action, whether therapeutic or preventive, is anteceded by some ideas about "cause of the illness" in the mind of the doctor. With the growth of scientific medicine, ideas about causes of illness underwent change and development, and as we look back on medical history, it is possible to distinguish between the ways of thinking about cause which were productive in action and those which were unproductive. From a study of the former, there may be derived certain principles of etiology which, although not usually made explicit in medical writings, seem fundamental to an understanding of how present-day facts and functions fit into a scheme of medical thought.

¹ Eliot, T. S. (1936), *Collected Poems*, Faber and Faber, London, p. 157.

It seems convenient to begin our study by noting that in modern medicine "cause" is usually regarded in one of two ways, namely the mechanismic or the biological. This could also be expressed by saying that cause may be regarded from a mechanismic viewpoint (or position) or from a biological viewpoint. The word "mechanismic" is to be distinguished from "mechanistic," which is overloaded with connotations derived from nineteenth-century philosophy.

MECHANISMIC CAUSE OF ILLNESS

The word "mechanism" refers to a system of mutually adapted parts working together as in a machine; or, as it is sometimes expressed: "Given the requisite preceding movement, the ensuing movement follows necessarily upon it, provided that the machine is in working order." The machines of the ancient world were confined to contrivances made up of levers, wedges, wheels, pulleys, props, and screws. The idea that the human organism is a machine, that it may be regarded as a mechanism, is therefore a modern one.

During the last three centuries, knowledge of the human organism in terms of mechanism increased progressively. The structural approach, adopting the techniques of anatomy and histology, revealed the detail of its architecture; the techniques of physics and chemistry made evident the mutual adaptation of the parts—organs, nerves, cells, fluids, secretions, and so on. Contemporaneously with this fuller appreciation of the working together, of the preceding movement and the ensuing movement, the human organism came to be regarded as if it were, in actual fact, a machine. Even its needs with respect to food, water, and oxygen were considered to be analogous to the

needs of a modern machine (such as a gasoline engine) with respect to fuel, lubrication, and air. It was accordingly concluded that if a human organism supplied with those requirements failed to function properly, the "cause" of the breakdown was similar to that of a machine, namely a fault in one or more of the component bits and pieces. In this way the idea arose that the main and primary concern of medicine was to identify the faulty parts and to relate these to the symptoms of the patient. Through use and wont, identification of faulty parts often became associated with the word "diagnosis." A diagnosis could be expressed in terms of any part viewed by any technique. For example gastric ulcer—a structural fault in the stomach; acidosis—a chemical fault in the body fluids; hypertension—a physical fault in the blood pressure; and so on.

What guidance for action is provided by this mechanismic etiology? Obviously any action taken (apart from attending to the supply of food, water, and air) is confined to interference with mechanism. There are many methods of achieving this: for example removal of a faulty part by surgery, as in an operation for appendicitis; manipulation of a joint as in orthopedic treatment; replacement by "spare parts," such as thyroid extract in myxedema or insulin in diabetes; neutralization of acids by alkalies; temporary disconnecting of nerve synapses by administration of drugs; and so on.

The implications of mechanismic etiology may be summarized, then, as follows:

The human organism is a machine composed of mutually adjusted parts working together.

Illness corresponds to a breakdown in the machine.

The cause of illness (provided the patient has adequate

calorific fuel, lubrication and air) lie in something being wrong—a fault, disease, lesion, imbalance, or abnormality—in one or more of the parts.

A tabulation of the “causes of illness and incapacity” in any community is compounded of terms indicative of faulty parts or localized diseases, for example duodenal ulcer, bronchitis, myocarditis, neuritis, and so on.

A doctor’s primary task is to ask himself the question: What has the patient got?

The more a doctor knows about bits and pieces the more effective he is likely to be; in other words, medicine can be organized successfully only by increasing the number of specialists.

Medical action is confined to interfering in a direct manner with the mechanism—in slang phrase, “tinkering with the machine.”

Now although highly significant in therapeutics, *mechanismic etiology provides no direct guidance about measures which will keep people from becoming ill. It is not an etiology suitable for prevention.*

Admittedly this sketch of mechanismic etiology is too narrow; nevertheless a number of medical men still think and act mainly within its terms. They may deny that they do so but their deeds and writings belie their words. It is not that this viewpoint is wrong in itself—indeed, it is highly necessary—but that, taken by itself, it provides a picture of the facts and functions of medicine that is inadequate and distorted. Sometimes, even, it is regarded, but inappropriately, as *the* method of “scientific medicine,” especially by the clinical technician who has increasingly supplanted the older “physician,” whose mind was imbued with the earlier biology known as “natural history.” As a result of such teaching many graduates enter

practice with two vaguely defined impressions. The first is that in every patient there must be a localized fault or disease which is the "cause" of the illness. The second is that for every "disease" there is a cut and dried line of mechanismic action called the "appropriate treatment."

It is interesting to reflect that mechanismic etiology would have been unintelligible several centuries ago, when the idea of cause in medicine was related not to demonstrable parts but to indefinite conceptual "entities," such as those of the elements and the humors. These concepts are now quite alien to us, but the doctor in Chaucer was perfectly satisfied with his elemental and humoral etiology—the legacy of Aristotle and Galen. He had tested it in practice and—the results were excellent:

He knew the cause of every malady
Were it of hot, or cold, or moist, or dry;
And where engendered, and of what humour.
He was a very perfect practiser.

Similarly, a student poet of today might describe with affection and admiration his teacher of clinical medicine:

He knew the cause of every malady—
Diseases—that within the body lie:
The names they bear; and their exact position;
He was indeed a wonderful technician.

In making these comments I mean nothing disparaging. In the words of Burton's *The Anatomy of Melancholy*: "I will urge these cavilling and contumelious arguments no further lest some physician should mistake me and deny me physic when I am sick. For my part I am well persuaded of physic. I can distinguish the abuse from the use in this as in many other

arts and sciences. *Aliud vinum, aliud ebrietas*—Wine and drunkenness are two different things."

Yes! Wine is one thing; drunkenness is another!

BIOLOGICAL CAUSE OF ILLNESS

The biological viewpoint is concerned primarily not with mechanism (in the sense in which I have used the word) but with the individual and his environment. Illness is regarded not as a fault in the parts but as a *reaction*, or mode of behavior, or vital expression of a living unit in response to those forces which he encounters as he moves and grows in time. Cause is therefore *twofold* and lies both in the nature of the individual and in the nature of his environment at a particular point in time.

When stated in this concise way the biological viewpoint sounds rather complicated. Actually, however, it is nearer the natural naïve notion of illness than the sophisticated mechanistic outlook. For example, in many colloquial phrases we find the notion of the person encountering an external force at a point in time. Thus: My aunt *caught* a cold last night; His boy *took* mumps on Christmas day; He *met with* an accident yesterday; That year the plague *visited* us; and so on. The mechanistic bias of the medical schools, or more properly of undergraduate training, has, however, impaired in many medical men the natural biological outlook.

ENVIRONMENT AS CAUSE

The word "environment" means the surrounding—the totality of exterior circumstances. When we investigate environment we may apply a variety of techniques of approach—the physical, chemical, bacteriological, psychological, and so

on. In this way the environment of an individual at any point in time may be split for convenience into separate components which are called "factors." (A psychological approach to environment provides answers in terms of the psychophysiological and psychosocial effects of factors of "social" environment.)

From the beginning of man, gross physical factors of the surrounding, such as physical mass (trauma), heat, cold, damp, have been recognized as causal of illness or incapacity. Certain chemical factors, such as drugs and poisons, were also known from earliest times. So, too, were psychological factors (such as loss of fortune, bereavement, or disappointment in love). Indeed, these were accepted naturally as causal not only by the laity but also by physicians up till the eighteenth century, when medicine began to be dominated by the mechanistic outlook; but it was not until about fifty years ago that their importance and significance were rediscovered by medical scientists.

In the late nineteenth century a great impetus was given to the scientific understanding of environment when the new technique of bacteriology was discovered and applied. This enabled observations to be made which indicated that to encounter certain types of microorganic life might *cause* the individual to react with certain types of illness. For example the "fevers" which had been held to be caused, in the mechanistic sense, by internal derangements of chemistry were recognized as reactions to microorganisms. Many other illnesses which hitherto had been attributed solely to mechanistic faults were similarly allocated. These illnesses included certain diseases of the nervous system, such as locomotor ataxia, general paresis of the insane, tetanus, and infantile paralysis; diseases of the skin, like lupus and leprosy; and diseases of the lungs such as tuberculosis. With the growth of chemistry, still more "dis-

eases" became causally related to external agents; for example the primary nervous disease called "peripheral neuritis" came to be understood as, on occasion, a reaction to certain chemical factors such as alcohol, lead, and arsenic.² Also rickets, formerly regarded as a disease of the constitution, was related to an environment of chemically deficient diet. With the advance of medical psychology during the present century, other illnesses, especially many of those hitherto grouped under the heading of general medicine, began to be removed from their classification as localized or systemic diseases and came to be understood as responses to psychological factors of environment. Thus miner's nystagmus ceased to be a disease of the eye, writer's cramp a disease of the muscles, and simple tachycardia a disease of the heart. Statistical measures were given to the frequency with which certain common diagnostic labels (such as debility, anemia, disordered action of the heart, gastritis and rheumatism) were used as a cover for psychoneurotic illness. Finally the application of a psychological approach to certain common organic diseases (such as peptic ulcer, various forms of rheumatism, bronchitis, and disorders of the endocrine glands) showed that their onset was preceded in a significantly high proportion of cases by profound disturbances of the emotional life in response to upsetting events or life situations.

This rediscovery of environment by splitting it up into various factors by the successive application of new techniques has revolutionized medical thought. It is now evident that *a necessary antecedent to measures of prevention is a shift from a mechanistic to a biological etiology—a change-over from the outlook upon illness as a localized disease to that of illness as a vital reaction, or even as a mode of behavior.*

² Albutt, Sir T. C. (1926), *Encyclopaedia Britannica*, 13th ed., XVIII, p. 56.

The progressive understanding of surrounding as cause is of the highest importance to the public health. In the past, advances in preventive medicine have depended very largely on a growing appreciation of the etiological significance of environment, and on the initiation of appropriate action designed to remove or alleviate the pressure of those factors discovered to be relevant and causal. Illnesses such as typhoid fever, cholera, plague, typhus—to name a few—have been prevented almost entirely by action taken with regard to noxious microorganic factors and to the media in which they exist. Communal action dealing with noxious gaseous and dietetic factors of environment is in progress. Consciously directed action against morbid psychological factors of environment has scarcely begun, but in this respect the biological principles of preventive medicine are equally applicable here not only for observation and thinking but also for action.

Modern biology includes psychobiology, a word which indicates that behavior—and this includes illness, which is a mode of morbid behavior—cannot necessarily be understood if the psychological approach is omitted in the study of individual and environment. The word “psychobiology” admittedly inelegant, is useful because it serves to remind us that imperfections in our thought and action may be due to our failure to include the psychological approach in our investigations. The preventive medicine of the future will become concerned increasingly with the investigation of noxious psychological factors of communal environment.

INDIVIDUAL AS CAUSE

The notion of an individual is a natural one, but its scientific consideration is not so simple. Indeed, books have been devoted to the question of what we mean when we talk about

an individual organism. For our present purposes it is sufficient to mention three things:

1. The observed phenomenon which we call an individual possesses continuity in time—although constantly changing he remains the same individual.

2. The individual, although composed of heterogeneous parts, behaves as a unit, a whole, or an integer. The unification, the wholeness or the integration of the parts, is achieved by the mechanism of the central nervous system at the sensorimotor level, and by the triad of the primitive brain, the autonomic nervous system, and the endocrine glands at the vegetative level.

3. Each individual is unique and differs in one or more *characteristics* from his fellows. Characteristics may be either inherited, that is to say, they were in being before the individual appeared in historical time, or acquired, that is to say, they did not become manifest until after the individual appeared in historical time.

When two individuals encounter an identical environmental factor, the behavior of each depends on his characteristics. For example a weight falls equally on the legs of a man aged thirty and on the legs of his father aged eighty. The son responds by suffering slight discomfort and a superficial bruise, the father by suffering severe pain and a fracture of both legs. The characteristic of "age" is one which is therefore conceivably relevant to the nature and degree of reaction. Again, a tumblerful of water contaminated with typhoid bacilli is drunk by each of two men at the same time. The first man, who gives no history of previous typhoid fever, responds ten days later by a morbid reaction whose features include fever, prostration, diarrhea, and so on. The second, who does give a history of previous typhoid fever, shows no obvious morbid be-

havior. The characteristic of a "positive history" is one which is conceivably relevant in this instance. Lastly, a broadcast message reaches the ears of eight million and eight listeners. Eight million people show no morbid response, but seven listeners react with untoward activities and one falls to the ground in a faint. It is conceivable that the relevant characteristics here were psychological ones. We should be stating only a partial truth if we asserted concerning these three examples that environmental factors—the weight, the typhoid bacilli, and the broadcast message—were *the* causes of the various illnesses. *An aspect of cause resides also in the individual.*

The understanding of individual as cause—as distinguished from environment as cause—has been of importance for practical action, and some of the successes of preventive medicine, for example the control of smallpox, have depended largely on the use of this principle. By procedures such as vaccination and immunization, the personal characteristics which research has shown to be causal may be altered so that morbid reaction does not take place when the individual comes to encounter the reciprocal microorganic factor. It seems likely that this principle of thought and action will be developed further in the future as a means of preventing reactions to a number of other microorganisms, especially those whose medium is the air—for the air cannot be controlled so readily as the media of water and food. A degree of success in this respect has already been achieved with diphtheria and whooping cough.

The principle in action is also seen in such schemes as the supply of milk to mothers and infants, infant welfare, child guidance, and school medical inspection. Each of these measures is an endeavor to alter the characteristics in children and adolescents (such as malnutrition, misdemeanor, and bodily defect) which are known or believed to be causal of illness and

inefficiency in the adult community of working citizens. Another example of the application of the principle of individual as cause is the attempt to prevent accidents in certain occupational groups by refusing to admit to the group persons who, on being tested, present the characteristics believed to be associated with "accident proneness." Finally, it has been suggested that, by means of "genetics," human units likely to present characteristics inimical to the efficiency of the community (e.g. mental deficiency) should be prevented from being conceived—debarred from entering society.

The implications of biological etiology may be summarized as follows:

The human organism, although composed of parts, may also be regarded as an integrated unit or living person.

Illness represents a vital reaction or mode of behavior of a person to factors of environment which he meets as he moves in time.

The cause of illness is therefore twofold: certain characteristics of the person and certain factors of the environment.

The "causes of illness" in a community are tabulated not only in terms of parts but in terms of the kinds of individual and the kinds of environment.

A doctor's primary task is to ask himself such questions as: What kind of person is this? and, What has he met?

The more a doctor knows about persons and their environment the more effective he is. In the medicine of the future, the general practitioner who has received a training in human biology will be of pivotal importance, and specialists will be regarded merely as his technical assistants.

Medical action is concerned primarily with measures designed to (a) alter or prevent characteristics of the person

known to be causal, and (b) alleviate or remove factors of the environment known to be causal.

Biological etiology is a *sine qua non* of the prevention of occurrences, but it may also be very important for treatment, that is, for the prevention of recurrences.

ETIOLOGICAL RECONCILIATION—THE PROBLEM OF VIEWPOINTS AND ATTITUDES

A review of mechanismic and biological etiology enables us to realize that they represent two viewpoints of the same thing: the sick individual. Although the pictures seen from the two positions are different they are not incommensurable but can be reconciled. Mechanismic etiology must inevitably bring its sequences of causes, in terms of preceding movements and ensuing movements, to a dead end. For example a clinical technician might say that the cause of a case of dyspepsia is hyperchlorhydria; the cause of hyperchlorhydria is disturbance in the function of the gastric glands; the cause of this is certain nervous and endocrine influences. And here he stops, having completed his description of what the patient has. It is now the turn of the biologist to take up the tale by asking the question: What did the patient meet? And what he met may have been not only physical and chemical factors encountered through his digestive system (e.g. a dose of methylated spirits), or microorganic factors encountered through his respiratory system (e.g. the influenza bacillus), but psychological factors encountered through his sensory nervous system (e.g. a threat to his employment). The biologist would also point out that the nature of the illness depends not only on the nature of an environmental factor but also on the characteristics of the

person who encountered it. (For example a threat to employment does not cause illness in all who encounter it, and in those in whom it does, only a proportion respond with symptoms of dyspepsia. By relating mechanistic and biological causes we come to appreciate that they are complementary, both being needed for an adequate appreciation of etiology.

It is not always realized how much our observation or perception of a thing or object depends on our viewpoint or position in relation to it. Thus when a penny is viewed at eye level it may appear as a long, narrow rectangle, but when we alter our position in relation to it and observe it directly from above, it is seen as a circle containing certain markings, and if observed from directly below is seen as a circle also but the markings are different. We are able, however, to reconcile in our minds these different observations made from different positions. Through the medium of special techniques of investigation we can further multiply our viewpoints, thus acquiring new perceptions and increasing the range of our observations. Corresponding considerations of position also apply to our conceptions of a "mental thing" or notion—as was illustrated in the account of the different aspects of "cause" when viewed from the mechanistic and the biological levels.

Our relation to an object may, however, be not only one of perception or conception but also one of feelings or emotions. In this case we talk not of viewpoints but of emotional positions, or attitudes, or feeling points. For example, a girl may continue in adult life to remain fixed at an emotional position in relation to her mother which is no longer appropriate or adequate. From such a feeling point she may continuously experience her mother mainly as an all-embracing, all-frustrating and omnipresent figure, with the result that she feels it is impossible, even fatally dangerous, to assert herself. An aim of

psychotherapy in such a person would be to enable her to discover other emotional positions, that is, adopt new feeling points, so that she no longer experiences her mother solely as a kind of spider from whose web it is impossible to become disentangled. If this can be accomplished we find, as indeed we should logically expect, that she succeeds in altering her emotional position in relation to mother. This is accompanied by an inevitable alteration in the attitude of mother to daughter, with the final result that both come to feel differently to one another, behave differently and *treat* one another differently.

FIELDS OF MEDICAL OBSERVATION AND DISCOURSE

We are now able to appreciate more exactly the ideas underlying the phrase the "cause of the illness."

As regards the *illness*, the fields of observation and discourse are the features (signs and symptoms) of a mode of behavior of an individual.

As regards the *cause*, the fields of observation and discourse are three, namely:

The field of the person. Under this heading are put the observations on the characteristics of the person before he became ill. These are innumerable and may be noted in terms of any technique. They include, for example, age, sex, weight, height, bodily habitus, history of previous illnesses, history of illness in the family, intelligence, personality trends, and so on. The problem is to distinguish which of these characteristics may be regarded as relevant and causal.

The field of the environment. Under this heading are included observation on the factors of the environment which the person met at, or shortly before, the time he fell ill. The

observations may be made in terms of any technique: physical (trauma, heat, cold, light), chemical (diet, poisons), bacteriological, and psychological (death of a loved person, failure of promotion, etc.). Such factors are innumerable, and the problem again is to determine which of them may be regarded as relevant and causal.

The field of mechanism. Under this heading are put observations on the "bits and pieces" (structural, physical, chemical, psychological) which are set into action by the encounter and which ultimately bring about the particular mode of behavior. The problem is to distinguish which of these are primarily involved.³

PRINCIPLES OF ETIOLOGY

THE ETIOLOGY OF ONSET

The question, "What is the cause of the onset of this illness?" is tripartite, namely:

What kind of person was this? That is, which of his characteristics are relevant and causal?

Why did he become ill when he did? That is, which factors of environment are relevant and causal?

Why did he become ill in the manner he did? That is, which part encountered the factor and which bits and pieces by

³ *Note on the fields of discourse as abstractions.* When for convenience of thinking we separate our perceptions (and conceptions) of the illness, the person, the environment, and the mechanisms into distinct fields of discourse the separation is "in our minds," i.e., we are making abstractions in an endeavor to apprehend and comprehend (etymologically, to *seize, tear, contain*) the fused flux of person, environment-mechanism-illness. In reality the individual and the environment interpenetrate and cannot be sundered. For example the items "age" and "sex" may be regarded as characteristics, i.e., belonging to the field of the person but as each of those is associated with particular structural, endocrinological, and psychological settings their consider-

preceding movement and ensuing movement finally made manifest the particular mode of behavior?

Note on relevancy. Perhaps I may make the question of relevancy clearer by mentioning the well-defined mode of behavior called typhus fever. After endless speculation and research into all kinds of environmental factors, one which was discovered finally to be highly relevant was the body louse (and later a virus). Before the bacteriological technique was known, Murchison⁴ discussed, in his most readable book *The Continued Fevers*, all the aspects of etiology then available. For example, in the first field of discourse he mentions as relevant characteristics of the person: sex, age, idiosyncrasies, intemperance, mental depression, and previous illnesses; in the second field he discusses relevant factors of environment, such as month and season, temperature and moisture, overcrowding, lack of food and shelter; in the third field of mechanism he enumerates the morbid anatomical findings. The inference as to cause which he made from his observations and discourse was as follows: "The primary inciting cause of typhus is a specific poison emanating from the bodies of persons previously infected or generated *de novo*. There is, however, reason to believe that the poison is contained in cutaneous and pulmonary exhalants, that it is conveyed through the air or by fomites, that it is then inhaled or perhaps swal-

ation involves the field of mechanism also. Another item which may be regarded as a characteristic is "occupation"—which so often "shapes the man"—but occupation necessarily involves a reference to particular constellations of environment. Likewise a "history of previous injury or disease"—the result of previous environmental factors—may be regarded as a characteristic, but because it has had effects on the mechanism this field of discourse is involved too. In actuality, therefore, as contrasted with our abstractions, the person, his environment, his mechanisms, and his illnesses are interrelated and depend on one another or, to talk in metaphors, they overlap or flow into one another.

⁴ Murchison, C. (1873), *The Continued Fevers*, Longmans, Green and Co., London.

lowed with the saliva and so finds admission into the blood of fresh victims."

Now, the observations which he made were good, but their range was too narrow. As a result, his inferences, as we now know, did not "correspond with reality," and action based on them was ineffective. With the discovery of the relevancy of the body louse—and later of a specific virus, the relevance of which is absolute—all Murchison's observations were unified and placed in their proper setting and perspective, with the result that the etiology of typhus fever began to "make sense" so that its prevention became a practical possibility.

The idea of cause. According to philosophers, the idea of cause is very complicated. In medicine, however, and in this book, the word is used not in any straitened or fantastic sense but naturally and "without thinking," as in its everyday application to human activities. To illustrate this usage let us take a fragment of conversation which may be overheard when a toddler begins to howl in the street.

Onlooker to mother: "Why is he crying?"

Mother: "Oh, he cries at anything; he is just a baby."

Small brother: "He saw a cat and it frightened him."

Onlooker: "Well, he has a fine pair of lungs, anyway."

Big brother: "He's crying because he wants his mommy."

These remarks provide an explanation of the child's mode of behavior in terms of the three fields of etiological discourse. In the field of the individual the cause is announced to be the characteristic of "being a baby"; in the field of environment the encounter with a cat; in the field of mechanism the lungs in their instrumental perfection. The remark of the big brother implies that the mode of behavior may also be regarded as having an end in view, that is, it has a teleological significance. It will be noted that if any mode of behavior is

to take place, "cause" must operate in all three fields at a particular point in time. In the example quoted we may assume that the behavior called "crying" would not have appeared in the absence of (a) the characteristic of being a baby, or (b) the environmental factor of the cat, or (c) the mechanistic integrity of the respiratory organs.

Some readers may object that it is erroneous to include mechanism under the heading of etiology. But ask any medical student what is the cause of diabetes and he will reply, "A disturbance of the pancreas." Ask any psychiatrist the cause of an anxiety state and he probably will reply, "Conflicts, repressions, and regressions." Finally the *Lancet* (June 18, 1938) gave the title "The Etiology of Peptic Ulcer" to a survey dealing solely with the bodily mechanisms concerned in its production.

TELEOLOGICAL CAUSE

A still further question of etiology, is *What is the person doing this for?* What is he getting at with his illness? What is the goal of his behavior? The study of cause from the viewpoint of purpose or goal is called teleology. This viewpoint is probably applicable to all illnesses. Thus we may say that when an individual meets the diphtheria bacillus and reacts by illness the purpose of his behavior is to overcome the bacillus so that he may again achieve his equilibrium with his environment. The "end in view" is, however, most highly significant in illness in which psychological characteristics, factors, and mechanisms are causally relevant.

The application of teleology to the problems of medicine makes a further and practical contribution to our understanding of illness not only in individual patients but also in communities. What a person has to live for profoundly modifies

his bodily reactions and modes of behavior. "Where there is no vision (of ends in view) the people perish."

THE ETIOLOGY OF NATURAL RECOVERY

Etiology is concerned not only with the causes of the onset and progress of illnesses but also with the causes of recovery. *Why does a person get better when he does?* A knowledge of the etiology of natural recovery is important not only for therapeutics but also for prevention.

The word "recovery" refers to the subsidence at a particular time of a morbid mode of behavior. The subject of natural recovery as distinguished from therapeutic interference has received little systematic attention, although a proper understanding of how people recover naturally should increase our knowledge of rational treatment and prognosis.

The questions of the etiology of recovery are: (1) *What kind of person was this before he became ill?* (2) *Why did he begin to get better when he did?* (3) *What were the mechanisms concerned in his recovery?*

The second question refers to the environmental encounters immediately before or at the time of recovery and demands an enquiry, *inter alia*, into two sets of factors, namely (a) those which the individual ceased to encounter and which had been of such potency that their withdrawal lessened the noxious pressure of the environment, and (b) those new factors which he met and which altered the emotional position of the patient either to his surroundings or to his future (i.e., provided him with an end in view).

Patients with asthma may recover when the pressure of environment is alleviated, and also when they obtain "something to live for." Peptic ulcers under X-ray observation may heal

rapidly when patients encounter an incident that relieves them of their occupational or financial anxiety or diminishes their sense of insecurity or frustration. Periarticular swellings treated for months by various methods of physical therapy may disappear within a few days of receiving good news. Similar observations may be recorded in respect of "fibrositis" and recurring bronchitis. On the other hand, where the barrier of adverse circumstances is unchangeable, patients may yet recover when they encounter an incident which alters their emotional position or attitude toward them.

GUIDANCE FOR ACTION FROM INFERENCE ABOUT CAUSE

If our observations are correct and wide enough, and if our inferences as to cause derived from these observations are logical ones, then we may expect that any action based on these causes "may enable us to interfere with the course of natural events and modify them to suit our purposes." ⁵ In other words, knowledge of etiology provides us with guidance for action. Medical action may be taken in all the three fields. For example, in the first fields the problem is to alter the characteristics of the person which are relevant. (Can we change the color of the Ethiopian's skin or remove the leopard's spots? Sometimes yes, sometimes no.) Diphtheria may be quoted as an illustration. From our knowledge of this illness we can take action either with respect to the individual by altering the characteristic known as "being Schick-positive" to that of "being Schick-negative," or with respect to environment by removal, ventilation, cleansing, or disinfecting, or with respect to mechanism by supplying antitoxin. It will be noted that ac-

⁵ McDougall, W. (1934). *The Frontiers of Psychology*, Cambridge University Press.

tion in the first two fields is preventive action, whereas action in the field of mechanism is therapeutic, or only temporarily preventive.

THE PRINCIPLE OF THE PREVALENCE

So far, our discussion of cause has been based on the experience gained by the method of "serial enquiry," that is, by making observations on a series of unselected "cases," on consecutive patients who have the same type of illness and contrasting the results with those obtained by similar observations on a series of controls in the shape of consecutive healthy persons or of patients suffering from a different type of illness. An illustration may be given.

Davies and Wilson ⁶ examined a series of two hundred unselected persons with peptic ulcer and found that in 84 per cent the ulcer had formed at a time when the individual was reacting emotionally to upsetting external events, whether financial, occupational, or domestic. As a control, they examined a series of persons with inguinal hernia and found that in this group the hernia developed at a time of upsetting emotional reaction in only 20 per cent. The difference between 84 and 20 per cent is significant statistically. This implies that the findings of the psychological approach are highly relevant in any discourse on the etiology of peptic ulcer. The writers also investigated the characteristics of these persons previous to the onset of gastric symptoms and related their findings in the etiological fields of the person and the environment with those of the field of mechanism.

The method of serial enquiry has, however, an interesting limitation in that it pays no attention to the temporal onset of

⁶ Davies, D. T. and Wilson, A. T. M. (1937), "Observations on Peptic Ulcer," *Lancet* ii, p. 1353.

the illness in historical time and, proceeding as if this were of no significance, it regards the time of onset as a constant for all individuals examined. In actuality, however, *patients do not fall ill simultaneously but at different times, seasons, and years and in different places*. Knowledge of the etiology gained from serial enquiry must be regarded, therefore, as incomplete or unsubstantiated if it cannot be reconciled with the facts of the *prevalence* or temporal rising and falling of an illness in a group. A further principle of etiology must therefore be invoked:

The facts of the prevalence should sustain the inferences derived from serial investigation concerning the etiology of the disease. If not, then the inference as regards cause is faulty, partial, or erroneous.

An illustration of the importance of this principle of the prevalence is provided by the mode of behavior identified by the term miner's nystagmus.

In 1921 a committee was set up to enquire into what was called the "disease known as miner's nystagmus." The importance of taking psychological factors into account was stressed by certain witnesses. The committee brushed this aside and decided, although the evidence provided in the report⁷ does not seem to justify their inference, that the environmental cause of miner's nystagmus was inadequate lighting in the pits. In the actual words of the report, the committee "unanimously reached the conclusion that the essential factor in the production of miner's nystagmus is deficient illumination." Following upon the committee's recommendations, steps were taken to improve lighting in the pits generally. Now, if the committee's inference as to cause had been a valid

⁷ *Reports of Nystagmus Committee* (1922 and 1932), H. M. Stationery Office, London.

one, we should have expected to find a progressive reduction in the incidence of incapacitating nystagmus *pari passu* with the approved lighting. Yet the opposite happened. For example, in Scotland between 1922 and 1930 the incidence of miner's nystagmus increased fivefold—and this in spite of an increasing “tightening-up of certification.” As the theory of defective lighting as cause was not sustained by the facts of the prevalence, then according to the etiological principle of the prevalence the inference of the committee was either faulty, partial, or incomplete. If as scientists, we are, however, willing to take account of psychological factors of the mining environment in our etiological discourse the increasing prevalence of nystagmus from 1922 to 1930 becomes more understandable in terms of certain adverse communal factors, all of which have clear psychological aspects, namely the growing unemployment, the falling in wages, the increasing mechanization of the pits, and the advertisement and suggestion provided by the *Nystagmus Report* of 1922.

EXPLANATION OF AN ILLNESS

When the findings as to cause in each of the three fields of discourse can be related one to another, and when the findings are not contraindicated by the facts of the prevalence (in time and space), we may say that the illness is “explained.” Thus, we may explain diphtheria, at least partially, by saying that cause in the first field is the characteristic summarized by the phrase “being Schick-positive”; cause in the second field is an encounter with the diphtheria bacillus; cause in the third field is the toxin produced on the fauces, which, by preceding movement and ensuing movement, necroses the mucous membrane and is distributed via lymphatics to the central nervous system and via the blood stream to the heart, thus bringing about the

chamois membrane, the pallor, the collapse, the paralysis, and so on, the features which typify the particular mode of behavior which we call diphtheria. Further, none of these findings are contraindicated by the seasonal and long-wave fluctuations in the prevalence of diphtheria over periods of years. (This "explanation" of diphtheria is obviously imperfect in that it gives no adequate consideration to the "internal mechanisms" of environment.)

MULTIPLICITY OF CAUSES

So far, environment has been considered as if it consisted of innumerable separate factors which not only vary in causal relevance but which operate independently of one another. These forces and happenings, however, have relationships among themselves, and environment, like the individual, may be regarded as having internal mechanisms. An example of the internal mechanisms of environment is given below in the note on specific cause with respect to the typhoid bacillus, autumn, and the housefly. Fluctuations in the prevalence, both seasonal and "long-wave," of certain illnesses such as diphtheria are probably related not only to the state of "herd immunity" but also to environmental mechanisms still undetermined. The increasing prevalence in the interwar years of disabling psychoneurotic and psychosomatic illness was related to increasing pressure of psychological factors, but the internal mechanisms of environment considered psychosocially and culturally, although often discussed, are still inadequately understood.

Note on specific cause. This term refers to the field of environment and came into medical usage with the growth of bacteriology which demonstrated that certain varieties of microorganic life are causally related to certain patterns of

morbid behavior—a “specific” microorganism causing a “specific” type of illness. Thus *Bacillus typhosus* was said to be the *cause* of typhoid fever—in its absence this mode of behavior did not and could not be manifested. Later research, however, showed that contact between an individual and the *cause* of typhoid fever did not necessarily bring about any manifest reaction. In such circumstances, the person was said to possess—and later demonstrated to possess—the characteristic of “immunity.” Again epidemiological investigation showed that the prevalence of typhoid fever was significantly greater in autumn than in other seasons. This suggested that although *Bacillus typhosus* was the *cause*, other environmental factors might also have causal efficacy. Thus autumnal climatic influences might alter the characteristics of persons by “lowering the immunity”; alternatively, these influences might alter the characteristics of *Bacillus typhosus* by “increasing the power of infectivity” or “heightening the virulence.” Again, as autumn was admitted to be etiologically relevant, a further environmental factor might have a causal relationship, namely the housefly which is most prevalent in autumn, and, therefore, at that season has its maximum potential as a transport for *Bacillus typhosus* between contaminated excreta and food-stuffs.

It is evident that the term “specific cause,” although correct in a narrow and special sense, tends to be misleading in so far as it makes us forget the multiplicity or *synergy* of “causes,” and thus ignore the general principles of etiology whereby they may be comprehended. Much futile research has been carried out in the hope of tracing a “specific cause” of patterns of morbid reaction such as asthma and peptic ulcer, and even of the syndrome of persisting pain, stiffness, and limitation of movement with or without swellings of the joints which is a

dominant feature of the many different diseases so often lumped together under the term "rheumatism."

Much confusion of thought could be avoided if by "specific cause" we understand *an environmental factor the etiological relevance of which is absolute.*

Finally, in this section we naturally quote the noble verses called "Indian Fevers" written by Sir Ronald Ross * on the eve of his discovery of the "specific cause" of malaria:

In this, O Nature, yield I pray to me,
I pace and pace, and think and think, and take
The fevered hands and note down all I see
That some dim distant light may haply break.

The painful faces ask, Can we not cure?
We answer, No, not yet, we seek the laws,
O God reveal through all this thing obscure
The unseen, small but million murdering cause.

Apart from their etiological and historical interest, these lines reflect the penalties of the scientific discipline—the inflexible tedium of making observations; the torture, almost amounting to illness, of thinking creatively about them; and the further weariness of ever returning to the observations, to check, or to enlarge their scope.

A short account has been given of certain ways of thinking about cause in medicine which have proved dynamic and creative in determining progress in medical achievement. From them, certain principles of etiology may be derived. These have definite practical bearings in many directions—training, treatment, prevention, research—in that they provide a methodology whereby medical men may fit their diverse facts and functions into a framework of medical thought.

* Ross, Sir Ronald (1923), *Philosophies*, John Murray, London, p. 21.

PART TWO

Psychosomatic Medicine

CHAPTER 2

The Concept of a Psychosomatic Affection

By the construction of new concepts we can enlarge the range of our perceptual experiences and so become acquainted with new facts.

—F. G. CROOKSHANK in *Influenza and Other Essays*.

THE SYSTEMATIC division of diseases into broad causal categories based on the nature of dominating external etiological factors is well appreciated. During the last century preventive medicine was primarily concerned with the category of the infectious diseases: that series of disorders which represent the reactions of individuals, or groups, to a great variety of "specific" microorganisms. Between the world wars there was a growing interest in the diseases and disturbances that became increasingly assigned to the category of nutritional disorders, and still more recently attention has been drawn to a further category of diseases—the psychosomatic. The illnesses thus allotted may be subsumed under the term of the "psychosomatic affections," the word "affection" being chosen not only for its medical connotation of malady or disease but also for its deeper and older significance referring to the mental state, disposition, emotions, feelings, and impulses.

A crude and preliminary definition of a psychosomatic affection would be: A bodily disorder whose nature can be appreciated only when emotional disturbances, that is, psychological happenings, are investigated in addition to physical disturbances, that is, somatic happenings. Or alternatively:

A bodily disorder in which the application of the psychological approach provides information of high etiological relevance. In other words, the allocation of a disorder to the psychosomatic category depends fundamentally on quantitative factors.

Recent research has shown that the illnesses covered by these tentative definitions are numerous. They comprise not only the varied bodily disturbances associated with anxiety states but also many of the designated diseases of general medicine. A list of some of these is given below. Admittedly a number of the labels embrace a diversity of symptom-complexes differing in etiology, course, and pathology, but many of the illnesses designated by these terms are psychosomatic affections in the sense of the crude definition.

Gastrointestinal system: Duodenal ulcer; gastric ulcer of nonnutritional origin; mucous colitis; "gastritis"; certain instances of hemorrhoids and of gall-bladder disease.

Cardiovascular system: Effort syndrome; cases of essential hypertension, of coronary thrombosis, and of cerebral hemorrhage.

Respiratory system: Many cases of asthma; of allergic rhinitis and of recurring bronchitis.

Genitourinary system: Many cases of nocturnal enuresis, menstrual disturbances and of leucorrhea; even some cases of pyogenic urinary affection.

Locomotor system: Many cases labeled "fibrositis," neuritis, sciatica and lumbago; also rheumatoid arthritis and certain nontraumatic cases of osteoarthritis.

Endocrine system: Many cases of exophthalmic goiter and

hyperthyroidism; also certain cases of diabetes, obesity and myxedema.

Nervous system: Certain cases of migraine and the innumerable bodily disturbances of anxiety states and hysteria.

Blood: Certain cases of nonnutritionally determined hypochromic anemia.

Skin: Alopecia areata; certain cases labeled prurigo, pruritus, urticaria, seborrhea, etc.

Eyes: Miner's nystagmus; certain cases of chronic conjunctivitis and blepharitis.

THE FORMULATION OF A PSYCHOSOMATIC AFFECTION

In this list the disorders mentioned seem to be superficially unrelated and in no way connected; but further consideration reveals that many show peculiarities which distinguish them from illnesses which are not psychosomatic affections (such as infectious diseases, accidents, and food deficiencies) and in virtue of which they possess a common "form." These peculiarities relate both to the behavior of the illnesses in time and to the nature of certain etiological factors; and they may be summarized conveniently by setting them down in a seven-point formula by means of which the concept of a psychosomatic affection becomes developed.

1. *Emotion as a precipitating factor.* Examination of patients in series shows that in a high proportion of cases the bodily process emerged, or recurred, on meeting an emotionally upsetting event.

2. *Personality type.* A particular type of personality tends to be associated with each particular affection.

3. *Sex ratio.* A marked disproportion in sex incidence is a finding in many, perhaps most, of these disorders.

4. *Associations with other psychosomatic affections.* Different psychosomatic affections may appear in the same individual simultaneously, but the more usual phenomenon, as revealed in their natural history, is that of the alternation or of the sequence of different affections.

5. *Family history.* A significantly high proportion of cases give a history of the same or of an associated disorder in parents, relatives, and siblings.

6. *Phasic manifestation.* The course of the illness tends to be phasic, with periods of crudescence, intermission, and recurrence.

7. *The prevalence is related to changes in the communal environment considered psychologically and socially.* The incidence of a psychosomatic affection in a community rises and falls in response to the changes of social environment, that is, to changes of environment regarded in its psychological rather than its physical aspects.

COMMENTARY

Emotion as a precipitating factor

When we investigate patients with psychosomatic affections, we find that the illness is often precipitated by a clearly recognizable event or events to which the individual responded by a disturbance of his "emotions." Sometimes, however, the nature of the event seems petty in the objective sense and inadequate by itself to account for a profound emotional reaction in any "normal" person; but when consideration is given to the personality of the patient and to his previous life history,

such minor events can often—and with good reason—be interpreted as acting as the last straw.

Controlled investigations of a series of unselected patients have been made in a number of affections including asthma, peptic ulcer, hypertension, mucous colitis, exophthalmic goiter and rheumatoid arthritis; these indicate that in a significantly high proportion of cases the particular morbid process emerged, or recurred, when the patient met an emotionally upsetting external event or a period of abnormal stress. It may be inferred, therefore, that many of these persons would not have responded with their particular kind of morbid behavior—would not have taken ill when they did—in the absence of such events. In a minority no such dramatic events nor any undue stresses could be elicited from the history. All patients, however, before the onset of their illness had shown abnormalities of disposition and difficulties with their emotional life, usually extending back to earliest childhood.

Personality Type

When we meet an individual we receive certain impressions and experience certain feelings, which provide us with a sense of the “person,” and to the totality of these impacts we give the name of personality. Most medical men, perhaps those in general practice especially, come, as their clinical experience grows, to apprehend that certain kinds of disease tend to go with certain types of persons. The impression of types depends on the general configuration of the patient: on his external expression (which is a matter not only of the facies but also of attitude, posture, and manner of movement); on his “internal expressions” (as revealed outwardly in pallor, flushings, throbbings, size of pupils); and also on impacts that are vividly sensed but are often indescribable. Psychological investigation,

however, does allow some of these "sensings" to be described in a communicable way.

The intuitive idea that different varieties of syndrome or disease may be expressions of different types of personality probably applies especially to psychosomatic affections. The problem of personality is, however, difficult and complex and an adequate method of assessing it and relating its various "types" to particular types of illness has not yet been achieved, although some progress has been made. Two broad types of personality trends of a special immediate interest to psychosomatic medicine have been described.

1. *Hysterical or histrionic personality trends.* Persons exhibiting these trends seem to be motivated to an unusual degree by an inner necessity to obtain approval, attention, notice, or sympathy at all costs. The inner need may be expressed in forms and attitudes of behavior which to the casual observer seem quite unrelated: for example the heroic one, the devil-may-care, the hail-fellow-well-met, the nice person, the resigned or saintlike martyr and also, if resentment intrudes, the chronic griper or the "nasty piece of work." This protean histrionic personality is frequently found in association with the somatic manifestations of hysteria, whether in the form of sensorimotor disturbances (as in paralysis, spasms, anesthetics or severe pains), or in disturbances of those autonomic functions which in varying degree are subject also to voluntary control—such as eating, vomiting, breathing, coughing, controlling or relaxing the lower bowel, and so on.

Hysterical bodily manifestations are also frequently found in socially inadequate persons as in mental defectives and in the "queer," the "abnormal," and the "psychopathic."

2. *Obsessional personality trends.* Persons showing marked obsessional trends are of particular interest in relation to

many of the vegetative neuroses and psychosomatic organic affections. These trends are of considerable diversity and vary from person to person. They include such ritual practices as never to lose one's temper; always be clean and tidy; always be prompt and orderly; always be absolutely truthful; always do one's duty; always be busy; never to owe anybody anything; always be perfect; always keep one's feelings to oneself. There are thus many possible variations of the obsessional personality, and different variations tend to be associated with different affections. Thus in *colitis* there is undue preoccupation with cleanliness and tidiness. In *effort syndrome* the preoccupation is mainly with problems of morality, of honor, and of religiosity. In *peptic ulcer* the preoccupation is with security, especially economic, occupational, and financial security. In certain cases of *seborrhea* (as in young-adult acne) there is an obsessional preoccupation with work, with the need to carry out one's duties oneself, and with feelings of inadequacy which at times give difficulty in securing social contact with others.¹ In *coronary disease* a chief preoccupation is with unremitting work associated with the need to attempt to attain, or to maintain, a subjectively evaluated role of authority or being on top.² In *rheumatoid arthritis* the characteristic trends include a highly developed sense of duty associated with an abnormal requirement to self-sacrifice; indeed persons with this masochistic disposition seem both to attract and be attracted to self-restricting life situations, in the course of which the arthritis becomes precipitated.³

The relation between the type of personality and the type of illness is, however, not absolute. One and the same person may

¹ Wittkower, E. D., et alii (1941), "Effort Syndrome," *Lancet* i, p. 531.

² Dunbar, Flanders (1943), *Psychosomatic Diagnosis*, New York, p. 293.

³ Halliday, J. L. (1942), "Psychological Aspects of Rheumatoid Arthritis," *Proc. Roy. Soc. Med.* XXXV, p. 455.

in the course of his life develop different psychosomatic affections; and it is not suggested that his personality changes with each illness. All observers are agreed, however, on the significant frequency with which the vegetative neuroses and the organic affections appear in persons with marked obsessional trends.

Sex Ratio

A disproportion in sex incidence is a finding in many, perhaps most, of these affections. The excess is in males for some affections—for childhood asthma, duodenal ulcer—and in females for others—exophthalmic goiter, gall-bladder disease, rheumatoid arthritis. This suggests, among other things, the importance of the endocrine system as a mechanism in the mediation of these affections. It cannot, however, be related to physiological sex differences only, because with changes in the communal environment considered socially we find the phenomenon—to be described in Chapter Three—of alterations in the sex incidence. Such alterations may proceed to the point of bringing about a complete reversal of the sex incidence over a period of years. (For example, during the last century peptic ulcer preponderated in females, but during recent years came to preponderate definitely in males. Conversely, diabetes which, during the last century was mainly a disease of males, has now become a disease which preponderates in females.) These facts suggest that the “emotions” must be taken into account in any adequate understanding of these affections. Though disproportion in the sex incidence seems therefore, to be a feature of most psychosomatic affections, it cannot be postulated as one that is constant for each disorder at all periods of time. Lastly, the disproportion in the sex incidence of psychosomatic affections is in striking con-

trast to what is found in the infectious diseases, in which the incidence is practically even between the sexes.

Associated Affections

Different psychosomatic affections may appear in the same person simultaneously, but the more usual phenomenon is that of alternation, substitution, or sequence of different affections. Adequate records of associated, alternating, and sequent affections are not yet available and except for the definite grouping of asthma, eczema, prurigo, migraine, and enuresis, only occasional remarks on the subject are found in the literature. Ryle⁴ in discussing the "visceral neuroses"—a term under which he includes bronchial spasm, spastic colon, and "mucous colic," disturbances of the bladder and rectum, globus hystericus, heartburn, and simple paroxysmal tachycardia—noted how these rarely appear together in point of time but tend to alternate or occur at different periods in the patient's life. As illustration he contrasts the *temporal separateness* of these psychosomatic affections with the manifestations in human beings of anaphylactic shock, in which the symptom-complexes are *synchronous* so that we may observe "simultaneously or concentrated within a period of hours or days" (a) the symptoms of shock with a profound fall in the blood pressure, tachycardia, the sense of impending death; (b) angioneurotic edema; (c) urticaria; (d) asthma; (e) gastrointestinal disturbances, usually with diarrhea; and (f) polyarthritis.

Sequent affections.—There are some casual references in published work to the time sequence of psychosomatic disorders. Thus the sequence of peptic ulcer, fibrositis, and bronchitis is not uncommon in the medical history of middle-aged persons who have been for long periods on the sick list. It is

⁴ Ryle, J. A. (1939), "The Visceral Neuroses," *Lancet* ii, pp. 297, 353, 407.

possible that the changing endocrinological setting associated with particular phases of the life cycle may be one of the many factors determining such sequences. The adult, like the child, may "grow out" of one affection, but he may "grow into" another.

Repertories of disease.—To illustrate the phenomena of an individual's range of affections, or repertory of disease, two examples are given below. In both cases the symptoms were responses to upsetting external events or periods of stress and strain. When one affection played Hamlet the others usually left the stage. Every medical practitioner will find numerous analogous cases among his patients, and every observant layman among his relatives or acquaintances.

Case 1. A man aged 40. Athletic build, superficially pleasant and sociable, but showed below the surface much resentment. Active and full of schemes. Often incapacitated. His repertory from the age of 26 has included "hysterical neuritis and paralysis" of the left arm; anxiety state, followed by "lumbago," which was replaced by acute religious conversion; recurring sinusitis; recurring duodenal ulcer, sometimes with severe bleeding.

Case 2. A woman aged 37. Small, dark, with visceroptosis, tense and active and rigid in routine. Preoccupied with bodily cleanliness and, as regards her house, was wildly exasperated when the kitchen premises, especially the "back door," were not as tidy and clean as the front door. Seldom incapacitated but "works on." Her repertory from the age of 24 has included the following, all of which have been recurrent: spastic colon, with spitfire diarrhea; floating kidney symptoms; left-sided hemicrania; sore feet; facial eruptions of the rosacea complex; hypochromic anemia, with feelings of difficulty in swallowing; neuritis of the left arm and fibrositis of the left shoulder.

The Psychoneuroses.—A study of the natural history of psychosomatic affections in individuals shows that psychoneurotic

illnesses may accompany psychosomatic organic diseases or may appear as preceding, alternating, or sequent disorders. During the course of psychoanalytical treatment the switch-over is sometimes illustrated dramatically when, as a "neurotic" or "mental" symptom becomes alleviated, a somatic manifestation takes its place. Such somatic manifestations are not necessarily one of the usually accepted bodily disturbances of anxiety state or hysteria, but may be expressed in such forms as sore throat, hemorrhoids, bronchitis, skin eruptions, fibrositis, and so on.

Family History

Accurate studies of the family history in patients with psychosomatic affections are not numerous. Textbooks usually dismiss the subject by phrases such as "inheritance is important" or "a family history is common." Special investigations have, however, been carried out in a number of psychosomatic affections such as duodenal ulcer, hypertension, rheumatoid arthritis, asthma, and mucous colitis, and these indicate that a significantly high proportion of cases give a history of associated disorders in parents, siblings, and relatives.

The method of familial transmission is still undecided. Only a proportion of a family become affected. In many cases no positive family history is obtainable. Genetic (or Mendelian) inheritance has not been established. There may, however, be inherited some kind of weakness, sensitiveness, or inadequacy, or even a predisposition to special patterns of bodily reaction. Yet this cannot be stated with certainty because of the difficulty of disentangling predisposition that is inherited from predisposition that is acquired during the very earliest stages of mundane existence (*see* Chapter Five). But whether biologically inherited or very early acquired the predisposi-

tion seems to be woven into the "physiological pattern" of the personality.

Finally it may be noted how common speech assumes that there are "family repertoires" of disease: one family is "high-strung," another "queer," another has "weak stomachs," another is "not strong," another "chesty," and so on.

Phasic Manifestations

The course of the illness tends to be phasic, with periods of crudescence, intermission, and recrudescence. Rhythmic or cyclic manifestations are a feature of all life, whether viewed somatically or psychologically, but in the case of psychosomatic affections the rhythm of recrudescence is an irregular one, as may be noted from studying over a period of time patients with peptic ulcer, asthma, rheumatoid arthritis, fibrositis and gall-bladder disease. Each major phase of crudescence varies in severity and has no standard duration. In different people and in the same people on different occasions, the duration may vary from hours or days to months. Each stage is followed naturally by an interval of absence or subsidence, but this is of no constant length. The study of the behavior of these affections indicates that this negative phase does not necessarily represent—as is sometimes optimistically imagined—"a cure resulting from treatment." Sometimes the primary illness subsides, never to return; sometimes it assumes a progressive fulminating quality; and sometimes it merges into chronicity. However, the usual course of these affections is that of irregularly phasic appearances.

Investigations have shown that the irregularity in the appearance of phases of crudescence is sometimes associated with the irregularity in time of disturbing or distasteful external events. (Why does he take ill again when he does?) Conversely

the initiation of a negative phase may be related to the removal of disturbing circumstances or the interposition of favorable happenings. (Why does he get better when he does?) Lastly, minor phasic exacerbations or remissions are sometimes associated with cyclic endocrine activity. Thus it is said that menstruation usually worsens the symptoms in asthma and exophthalmic goiter, whereas the endocrine "imbalance" of pregnancy sometimes brings about a subsidence of rheumatoid arthritis or psoriasis or migraine.

The Prevalence in Relation to Social Changes

This theme will be developed in the ensuing chapters.

The "Psychosomatic Formulation" of Duodenal Ulcer

The formulation of a psychosomatic affection may be exemplified with respect to duodenal ulcer.

1. *Emotion.* In serial investigation the proportion of upsetting external events at onset is significantly greater than in controls (*see p. 36*).

2. *Personality.* Persons who develop duodenal ulcer all have a deep-seated sense of insecurity and dependence. The majority attempt to overcome this by showing on the surface an overemphasized activity, efficiency, and independence. Many of them are hard self-drivers and their breakdown usually tends to occur when their emotional security is threatened (often in the shape of threats to occupation or finance) or when they become inwardly anxious or depressed through the stresses of being in charge or in authority. A minority, however, are obviously dependent persons and many of these tend to show a readily provoked ill-humor or resentment, using their ulcer, if they have been told they have one, as a means of

securing attention, of excusing their inadequacy, and even of revenging themselves against society, whether in the form of a particular person or association of persons, or in the form of particular social arrangements.

3. *Sex.* Several times commoner in males than in females between the world wars.

4. *Associated affections.* Migraine, hypertension, "fibrositis," depression.

5. *Family history of psychosomatic illness.* Said to be four to five times commoner in cases than controls.

6. *Phasic.*

7. *Prevalence.* The incidence increased between the world wars in response to an increase of noxious psychological factors of the communal environment.

DISCUSSION AND CONCLUSIONS

Because the method of approach called "psychosomatic medicine" may be applied to all forms of illness, it has sometimes been lightly said that "all diseases are psychosomatic"—a statement which is as confused and as confusing as would be a remark that "all diseases are bacteriological, or infectious." By adopting a tentative definition of a psychosomatic affection and then seeing how it works, we find that diseases assignable to the psychosomatic category have peculiarities quite distinct from those of diseases primarily assignable to other broad etiological categories.

We may therefore conclude that the concept of a psychosomatic affection in the sense of its developed reference does succeed in bringing into relationship a great number of seemingly unrelated facts. The outlook gained shows that many "localized diseases," the names of which have hitherto throughout

textbooks of medicine been scattered under the headings of the various anatomical systems, may now be grouped under a unifying category. Although each designated disease assignable to the psychosomatic category has a multiple etiology—a synergy of causes—the term “psychosomatic affection” is a valid symbol which, as we shall see, provides an instrument for thinking, for investigation, and for direction of action. It is likely to be as valuable in the future of medicine as that of the concept of an “infectious disease” has been in the past, in that it provides a link by means of which changes in the communal environment considered psychologically and socially become relatable to changes in the incidence of many common incapacitating disorders and diseases. In addition its employment enables the clinician to appreciate as a matter of routine the need to supplement the academic medical examination of persons suffering from many common disorders by a psychological examination, if guidance for action is to be fully appropriate and treatment more lastingly effective.

CHAPTER 3

The Incidence of the Psychosomatic Affections

PSYCHOSOMATIC affections comprise many of the chronic and recurring forms of sickness. They are disorders which incapacitate rather than kill. In only a few does psychophysiological dysfunction lead to organic change which as an end result may ultimately prove lethal, as sometimes occurs in exophthalmic goiter, peptic ulcer, diabetes, and the hypertensive cardiovascular disorders. Statistics of sickness or morbidity should therefore provide the primary source of information. Unfortunately these are rare and those which do exist are often imperfect. The most complete series of morbidity statistics in Britain were those issued by the Department of Health for Scotland ¹ for the Scottish insured population during the years 1930-38, but their compilation was abandoned on the outbreak of war in 1939.

An analysis of the data available for Britain between the two world wars ² provided some interesting information which showed that during that period there was a rising incidence in many of the vegetative neuroses and psychosomatic organic diseases, although concomitantly there seemed to have been a decline in the bodily disturbances of hysteria.

¹ *Reports on Morbidity Statistics of the Scottish Insured Population 1931-37*, H. M. Stationery Office

² Halliday, J. L. (1945), "The Incidence of Psychosomatic Affections in Britain," *Psychosom. Med.* VII, p. 135.

DOWNWARD TREND OF HYSTERIA BETWEEN
THE WORLD WARS

Although no exact statistical data exist the evidence suggests that in the course of the present century there was a decline in the incidence of gross physical manifestations of hysteria in women. It is probable, too, that there was a contemporaneous decline in males also, if one may judge from the statistical findings of psychiatrists which showed that in World War I hysteria was common among "other ranks," whereas in World War II it was less frequently observed.

In civilian practice my observations made in the 1930's on insured persons showed that hysteria was most frequently seen in males engaged in dangerous occupations—notably workers at depths (such as underground miners), workers at heights (such as steeplejacks, steel erectors, and even slaters), and workers with explosives. In females the frequency of hysteria was highest in the occupations of nurse and domestic servant.

Apart from occupational considerations, hysterical manifestations tend to be relatively more frequent in mental defectives, in "uneducated persons," and in individuals whose early childhood has been passed in orphanage institutions, where they fail to obtain the necessary notice and approval that parents only can provide.

Mucous colitis. An interesting example of a disease prevalent in the late Victorian and Edwardian epochs is mucous colitis, or more properly muco-membranous colic. This disease was almost entirely confined to females and according to Hardy³ after about 1914 "it disappeared with remarkable suddenness and completeness." This writer considers that it

³ Hardy, T. L. (1945), "Order and Disorder in the Large Intestine," *Lancet* i.

showed distinct clinical and statistical differences from the other "functional" disorders of the colon whose incidence does not appear to have declined and which although also predominating in females do so only in the proportion of about 2 to 1. These disorders seem to be most frequent in the professional and black-coated-worker social classes. The decline and fall of "mucous colitis" is probably associated with the decline in hysteria which in turn seems to have been a function of the progressive social emancipation of women.

UPWARD TREND OF THE PSYCHOSOMATIC AFFECTIONS

Anxiety states. In contrast to the downward incidence of the bodily disturbances of hysteria there was a definite increase in those associated with anxiety states. The labels given on medical certificates as the "reason for incapacity" in such cases did not, however, usually refer directly to "neurosis" or "neurasthenia," and the nature of the illness was often disguised by terms such as "debility," "anemia," "gastritis," "rheumatism," and so on. The rise in anxiety states in the working population of Scotland during 1930-35—years of mass unemployment—was demonstrable in measurable form by analysis of the morbidity statistics of the insured population. These showed that during this short space of time the *chronic* sickness attributable to the labels which cover anxiety states rose considerably. Thus gastritis increased by 120 per cent, nervous debility by 100 per cent, anemia by 80 per cent, and rheumatism and cardiac debility by 60 per cent.

Peptic ulcer and gastritis. "Psychosomatic peptic ulcer," that is, "the ulcer of modern civilization," is to be distinguished

from the peptic ulcer that is etiologically primarily related to malnutrition, including mineral or vitamin deficiency. Nutritional factors may have been partly responsible for the gastric ulcer that was prevalent in Britain during the nineteenth century and that predominated in females. It was usually associated with chlorosis and was known as the "perforating ulcer of young women." Nutritional peptic ulcer is still prevalent in many parts of southern India and seems to be analogous to the stomach ulcers which can be produced experimentally in rats by inadequate diet.

Statistical evidence is unanimous that "gastric disorders" in males showed a remarkable increase in incidence in Britain during the present century. Not only did the vegetative neurosis known as "gastritis" increase but also peptic ulcer. (In females, peptic ulcer showed a decline.) The Scottish morbidity statistics indicate that during the years 1930-35 peptic ulcer as a reason for incapacity in the chronic sick more than doubled. Figures relating to the British Army show a similar tendency. Thus as Tidy ⁴ showed, in the first fifteen months of World War I the medical discharges from gastritis *and* peptic ulcer numbered only 709, whereas in the first twenty-seven months of World War II the discharges from peptic ulcer *alone* amounted to 23,574. The official *Medical History of the [First] Great War* did not even mention the term "duodenal ulcer"! The death rate from peptic ulcer in Britain continued to rise till about 1941-42, after which there was a decline which may or may not have reflected a decrease in incidence in that the improved "emergency hospital" and ambulance arrangements provided under the stimulus of war may have cut down

⁴ Tidy, Sir H. (1943), "Peptic Ulcer and Dyspepsia in the Army," *Brit. Med. Journal* II, p. 473.

fatalities by ensuing prompter hospitalization of perforated cases and securing more ready access to blood transfusion in cases of serious bleeding.

Exophthalmic goiter. For information regarding the upward trend of exophthalmic goiter we have to rely on mortality statistics alone. Thus between 1911 and 1936 the death rates from this disease in Scotland rose by 250 per cent in males and by 71 per cent in females; in England they rose by 400 per cent in males and by 230 per cent in females. After 1938 the death rate in both countries began to fall. This decline in deaths may or may not have reflected a real decrease in incidence, as it approximately coincided with the introduction of improved surgical and later of medical methods of treatment.

Diabetes. Mortality statistics of diabetes show an upward tendency during the century broken only temporarily during the war periods and during the years immediately following the initial introduction of insulin after which the rise was resumed. (The fall during the war periods is usually attributed to the scarcity of sugar, but this explanation is probably inadequate.)

Hypertensive cardiovascular disorders. The affections under this heading include essential hypertension as well as a proportion of cases designated as coronary thrombosis, angina pectoris, myocarditis, cerebral hemorrhage, and even nephritis (i.e., the cardiovascular renal syndrome). During the century the death rates from these diseases rose in spite of the decline in rheumatic fever, in syphilis, in heavy liquor drinking, and in the length of the laborer's working day.

Asthma, rheumatoid arthritis, gall-bladder disease. Both the morbidity and the mortality statistics relating to these diseases are imperfect and no conclusions can be drawn about their trend.

The degree of rise in each of the foregoing affections was not the same—as indeed we should expect in view of their differing separate etiology. The disorders in which the degree of increase was outstanding—especially as a reason for long-term incapacitating illness—were anxiety states, gastritis, and peptic ulcer. During the early 1930's their prevalence was equivalent to an epidemic.

CHANGES IN SEX INCIDENCE (SEX SHIFT)

A feature of the psychosomatic affections, noted in the previous chapter, was the disproportion in their sex incidence—a finding in singular contrast to the more or less equal sex incidence occurring in the infectious diseases. The degree of disproportion is, however, not constantly maintained and an interesting statistical result is the phenomenon of *sex shift*—a term which refers to the alteration in sex ratio (i.e., the male rate divided by the female rate) associated with the differing movement of incidence with respect to each sex. Thus the upward trend in peptic ulcer (and also perhaps in the hypertensive cardiovascular disorders) involved males only, so that the sex ratio in these affections was increased. The rise in deaths from exophthalmic goiter—a disease which “normally” shows a preponderance in females—involved both sexes but was steeper in males so that the sex ratio also rose, but not so markedly. In diabetes the rise in deaths also involved both sexes but it was considerably greater in females, with the result that the sex ratio decreased. (Actually diabetes provided an example of *sex reversal*. During the late nineteenth century it preponderated in males in the proportion of 2 to 1. With the relatively greater increasing incidence in females, the sex incidence became equal about 1910 and thereafter came to pre-

ponderate in females so that by the 1930's there was a preponderance in their favor in the proportion of 2 or 3 to 1.)

Sex shift as an expression of changes in "personality type."

The phenomenon of sex shift probably provides a statistical indication of the changes that have taken place in the "personality type" of sexes as a result of the social changes that led to "female emancipation" and to the "rise of the new woman." Thus certain of the psychosomatic affections which in the nineteenth century had preponderated in females (e.g. peptic ulcer, exophthalmic goiter, and perhaps essential hypertension) during the twentieth century occurred increasingly in males; whereas others that had preponderated in males (e.g. diabetes) occurred increasingly in females. These changes in sex incidence suggest, among other things, a developing neutralization in the psychological aspects of sexual distinction in that the personality type of males was apparently becoming in some ways more "feminine" and that of females more "masculine" than were their respective standard types in the nineteenth century.

CHANGES IN AGE INCIDENCE (AGE SHIFT)

The rising trend in the incidence rate of the psychosomatic affections was accompanied by an interesting movement of the age of the maximum frequency of onset, in that with a rising incidence this tended to shift backward toward the younger age groups. When represented graphically this retrogression is revealed as a movement of the age peak to the left (*see* Figure 1). In the Scottish morbidity statistics dealing with chronic sickness between 1930 and 1935 this age shift is most noticeable in relation to gastritis, peptic ulcer, and anxiety states (including such terms as anemia, nervous debility, rheuma-

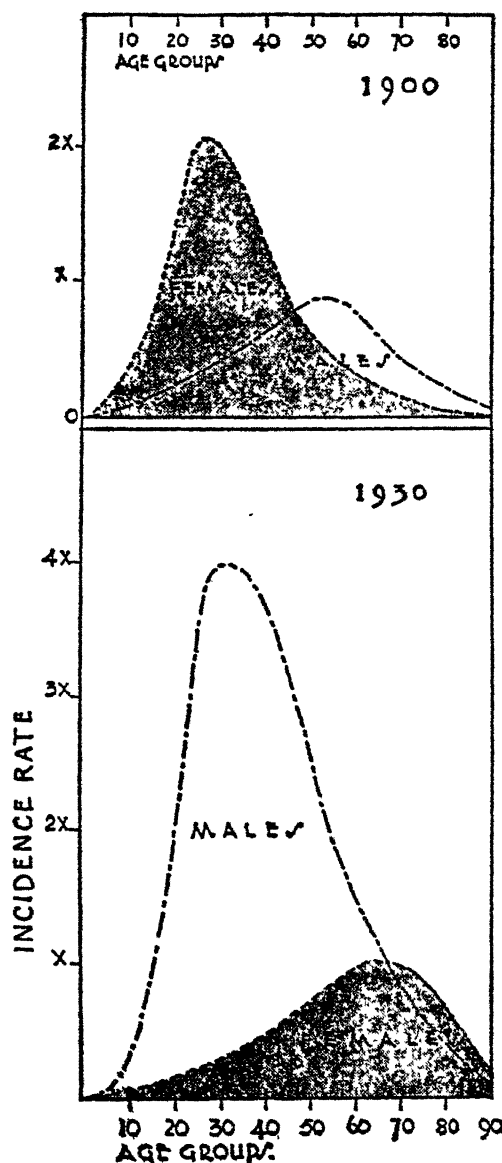


Figure 1, Illustrating the Phenomena of Sex Shift and Age Shift as Exemplified in Perforations from Peptic Ulcer between 1900 and 1930 (after Jennings).⁵

Sex shift. In 1900 perforations predominated in females, whereas by 1930 they had begun to predominate in males.

Age shift. In females in 1900 the age of maximum frequency (i.e., the age peak) was in the younger age groups. As the incidence in females declined it progressed, i.e., moved to the right, until by 1930 it was in the older age groups. Conversely, in males in 1900 the age peak was in the older middle-age groups. As the incidence in males increased it retrogressed, i.e., moved to the left, until by 1930 it appeared in the younger middle-age groups.

⁵ Jennings, D. (1940), "Perforated Peptic Ulcer," *Lancet* i, pp. 395, 444.

tism, and cardiac debility). As these were the disorders that showed the most outstanding rises in incidence they were the ones most likely to reveal the phenomenon clearly.

Mortality rates. The movements of the age peak of onset toward the younger age groups that occur at a time of rising incidence are not necessarily revealed in the mortality rates. Psychosomatic affections are by their nature phasic, recurrent, or chronic, so that death, if and when it occurs, does not usually take place in association with the primary onset (as in most infectious diseases and in accident) but is delayed to a later stage of life. Because of this the age peak of death—in contradistinction to that of incidence—tends “naturally” to be found in the older age groups.

DIVERSITIES OF INCIDENCE IN SOCIAL GROUPS

Rural and urban. The incidence of anxiety states, gastric disorders, rheumatism, exophthalmic goiter, and hypertensive cardiovascular diseases was greater in urban than in rural areas.

Occupational classes. The affections showed marked diversity of incidence as between different occupations. An outstanding example, that of underground miners compared to males who were not miners is described in Chapter Ten.

Social classes. Judging from the analysis of mortality statistics made by the Registrar General in England and Wales* in 1931 the incidence of the various individual affections (for which information is available) showed interesting and significant variations between different social classes. In peptic ulcer, deaths were considerably greater for both sexes in the labor-

* *Reports of Registrar General for England and Wales; and for Scotland*, H. M. Stationery Office.

ing classes than in the well-to-do and professional classes. In exophthalmic goiter, deaths were definitely most frequent in married women of the well-to-do classes. In both diabetes and hypertensive cardiovascular disorders, deaths in males were greatest in the well-to-do classes, but in females in the poorest classes. Conclusion from these data of mortality must be made with reserve. For example in peptic ulcer excess of deaths in the laboring classes might be due to the lack of prompt medical attention to alleviate the effects of perforation or hemorrhage, or it might be due to the deaths under this heading containing a higher proportion of "nutritional" peptic ulcer than existed in the better-off persons.⁷

VALIDITY OF THE STATISTICS

The upward trend of these disorders is not an artifact dependent on improved methods of diagnosis or on changes in the naming of disease. For example, although the term "peptic ulcer" has almost certainly been increasingly applied concomitantly with the increasing employment of finer methods of examination, this consideration can in no way account for the paradox that its incidence in females actually declined during the time it rose so remarkably in males. The suggestion that improved diagnosis might explain the upward trend of diabetes is inadequate as an interpretation not only of the reversal of sex incidence but also of the signal social finding (in the Registrar General's report of 1931) that in males the mor-

⁷ A special statistical study of deaths from gastric and duodenal ulcer considered separately (MORRIS, J. N. and TITMUS, R. M. (1944), "Epidemiology of Peptic Ulcer," *Lancet* ii, p. 841) showed that for ages under 55, deaths from gastric ulcer were more frequent in the poorer classes, whereas death from duodenal ulcer affected all classes more or less evenly. But after age 55 deaths from both gastric and duodenal ulcer were more frequent in the better-off classes.

tality rate was highest among the well-to-do classes, whereas in females it was highest among the poorer classes. Lastly, as regards exophthalmic goiter, a diagnosis so externalized is unlikely to have been recorded several times more frequently in the third decade of the twentieth century than in the first.

PREVALENCE IN OTHER COUNTRIES

An increase in the incidence of the psychosomatic affections during the present century was not confined to Britain. Similar findings have been recorded with respect to other countries which were adjudged to belong to industrialized "Western civilization," namely the British Dominions, The United States, and the countries of western Europe. In a valuable preliminary study of this question Donnison⁸ pointed out that these affections were rare in primitive, nonindustrialized communities—a conclusion which is probably correct in that it is in alignment with the findings in Britain that these disorders are least frequent in remote rural and nonindustrialized areas such as the West Highlands. With the introduction of "capitalist industrialism" into previously primitive countries, such as India and West Africa, the psychosomatic diseases apparently began to appear there also.

From this short study of the incidence of the psychosomatic affections we obtain insight into certain patterns of statistical behavior (e.g. "retrogression" of the age peak accompanying a rising incidence, and "progression" accompanying a falling incidence) which are of value in interpreting variations in the prevalence of certain other diseases in which "emotional dis-

⁸ Donnison, C. P. (1937), *Civilization and Disease*, London.

turbances," although quantitatively not so etiologically relevant, may also play a causal role. This brings us to consider the importance of psychosomatic medicine to the problems of chronic and recurring sickness.

CHAPTER 4

Psychosomatic Medicine and the Problems of Chronic and Recurring Illness

PSYCHOSOMATIC ASPECTS OF VARIOUS CHRONIC DISEASES

PSYCHOSOMATIC medicine provides information of etiological importance not only in the psychosomatic affections but in a number of other diseases which contribute largely to the mass of chronic sickness and incapacity: rheumatic fever, many cases of nonarticular and articular rheumatism, pulmonary tuberculosis, hypochromic anemia, and chronic bronchitis. These diseases differ from the psychosomatic affections, however, in three interesting respects: (a) Each is known to be etiologically related to particular physical or microorganic factors of environment. (b) Each declined in incidence between the two world wars—as contrasted with the psychosomatic affections (other than gross hysterical manifestations). The decline is usually supposed to be associated with a progressive amelioration of the physical environment. (c) Each shows only a partial compliance with the seven items of the psychosomatic formulation.

The following notes elucidate these considerations:

Rheumatic fever. This disease is said to be etiologically primarily related to a streptococcus. Its incidence, as judged from death rates, declined during the present century in as-

sociation with the decline in virulent streptococcal infections such as scarlet fever and erysipelas. It affects both sexes equally, but one of its manifestations, chorea in childhood, shows a definite sex disproportion in that it preponderates in females in the proportion of 2 or 3 to 1. The declining incidence of chorea was not accompanied by any sex shift or age shift, and the age of its maximum frequency consistently remained at five to fifteen years. A definite personality type is said to be associated with rheumatic fever.¹ A significantly high proportion of cases gives a "positive family history."

"Rheumatism." This is an omnibus term covering a number of diseases of differing etiology and nature. A not inconsiderable proportion of cases commonly labeled by terms suggestive of nonarthritic rheumatism are better understood as cases of hysteria, anxiety state, or depression. The application of the psychosomatic approach frequently provides relevant information in many cases of "fibrositis" as well as chronic osteoarthritis.^{1a} Rheumatoid arthritis seems to comply with a psychosomatic formulation but data regarding its trend are lacking.

Pulmonary tuberculosis. In its etiology the relevance of the tubercle bacillus is absolute. Its incidence, judging from death rates, has declined since the latter third of the nineteenth century. At no period has there been any marked disproportion in the sex incidence. The disease may be phasic. A "positive family history" is found in a high proportion of cases but this is usually explained, at least in part, by the increased facilities in an affected household for receiving large doses of tubercle bacilli at frequent intervals.

¹ Dunbar, Flanders (1943), *Psychosomatic Diagnosis*, New York.

^{1a} Halliday, J. L. (1945), "Psychosomatic Medicine and the Rheumatism Problem," an article in *Psychology in General Practice*, the Practitioner Series, London.

Syphilis. The etiological relevance of the spirochete is absolute. The disease has declined during the century. Psychological considerations require to be taken into account in considering promiscuity in adults.² The manifestations of parasyphilis (e.g. general paralysis, locomotor ataxia, aneurysm) show a striking preponderance in the male sex.

Hypochromic anemia. In this disease the etiological relevance of iron deficiency in the diet is absolute. Its incidence may have been declining during the past sixty years or so—if we accept the suggestion that the presently prevailing hypochromic anemia of middle-aged women is the representative in modern modified form of the chlorosis which prevailed in young women during the last century. On this hypothesis the decline in the incidence of hypochromic anemia would be associated with a “progression” of the age of maximum frequency toward the older age groups—as contrasted with the “retrogression” of the age peak found in association with a rising incidence of a psychosomatic affection. Hypochromic anemia is phasic and there is a marked disproportion in sex incidence in favor of females. Clinical observation of individual cases suggests that the “emotions” may sometimes play a part in precipitating the onset of an attack. Certain women whose diet is ordinarily adequate develop anemia (with its attendant characteristic symptoms) only at times of anxiety and stress. This improves in response to intensive iron therapy. If no iron is given, recovery usually takes place naturally when the disturbing events or the distresses of the life situation become alleviated. This form of hypochromic anemia may alternate or be associated with a defined psychosomatic affection (*see Chapter Two*).

² Wittkower, E. D. and Cowan, J. (1944), “Some Psychological Aspects of Sexual Promiscuity,” *Psychosom. Med.* VI, p. 287.

Chronic bronchitis. The term "bronchitis" covers a number of various diseases which are of the nature of responses to noxious agents—physical, chemical, or microorganic. Clinical observation of individual cases shows, however, that the "emotions" may sometimes play a part in precipitating the onset of a typical attack and in such instances it is useful to regard the bronchitis as a psychophysiological dysfunction. (For further notes on psychosomatic bronchitis see p. 258.)

Other respiratory diseases. Many cases of asthma and other "allergic" manifestations in the respiratory tract may be regarded also as psychosomatic affections. Recurring *sinusitis* is sometimes associated with emotional stresses, especially during a long period of inner tension. The word "influenza" is sometimes used as a label to cover an anxiety state.

Skin diseases. Many writers have drawn attention to the importance of applying a psychosomatic approach to a variety of skin diseases. Statistics showing the trend of these diseases do not, unfortunately, exist. During the war years many dermatologists of long experience commented on the increasing prevalence among housewives of various forms of eczema and dermatitis which they attributed to the prolonged strain, stress, and hurry associated with their war difficulties and which probably provoked not only fatigue but deep-seated emotional reactions of exasperation, anxiety, and resentment.

Industrial fatigue. This is another form of "casualty" of interest to psychosomatic medicine. Properly speaking the term refers to the morbid physiological effects which can be directly attributed to such factors as long working hours, long traveling distances to work, endlessly repetitive manipulation, absence of rest pauses, inadequate mealtimes, and so on. It may arise from the actual outward compulsion of circumstances—as happened in the industrial field in the weeks fol-

lowing the evacuation of Dunkerque. But it may also arise from inward compulsions associated with undue obsessional trends in the personality of the individual which drive him to an unremitting endeavor, irrespective of biological rhythms, until a pitch is reached, often both physiologically and psychologically determined, when the personality defenses fail and the patient collapses from "overwork" or from "industrial fatigue"—or from a defined psychosomatic affection.

Other chronic diseases in which the psychosomatic approach may provide interesting etiological information are the insanities.

The psychoses. In point of numbers the great majority of cases designated as insanity or psychosis are found in the older age groups and represent disorders of behavior associated with organic cerebral changes that are the end result of degenerative or toxic processes. Among such end results are those which arise from hypertensive cardiovascular disorders.

Three forms of insanity of particular interest to psychosomatic medicine are the "idiopathic" psychoses: schizophrenia, paranoia, and manic depression. As is the case with the psychosomatic affections, the etiological influence of physical and microorganic factors of environment is indeterminate. A "positive family history" is frequently found and their onset may be precipitated by upsetting events. There is, however, no very marked disproportion in sex incidence. In schizophrenia the sex incidence is about even and in manic depression and paranoia it predominates in females in the proportion of about 1.5 or 2 to 1. The occurrence of such psychosomatic affections as peptic ulcer and rheumatoid arthritis is said to be rare in these psychoses. The *trends* of incidence are not definitely known. Certain figures seem to suggest that there has been a slight increase in schizophrenia and manic depression—

but this is far from certain. Because, however, of the progressive alteration in the age composition of the population, whereby a higher proportion of persons are coming to occupy the older age groups, the incidence of the psychoses requiring institutional care is on the upgrade

Accidents. Another morbid happening of interest to psychosomatic medicine is accidents. From the standpoint of psychosomatic medicine accidents may be divided into two broad etiological categories. The first comprises those accidents in which the individual in no way causally participates (at least so far as our present knowledge goes), as by being hurt in an earthquake (a clear "Act of God") or being hit by a tile falling from a roof. The classic example of this type of accident is provided in Wilder's book *The Bridge of San Luis Rey*, which recounts how five separate innocent persons were drowned when a bridge collapsed. The second category comprises those accidents in which the person directly participates, for example injury of the hand in a machine which the person has been operating without accident for months or years. (Why did he do this when he did?) Persons who show a large number of self-participating accidents (compared to the average for a group in similar working circumstances) are said to be accident prone. According to Dunbar * the characteristic of accident proneness probably represents a special tendency to impulsive actions during periods of mental stress. (What kind of person is this?) Dunbar's researches suggest that relevant personality characteristics are refusal of personal responsibility, avoidance of any kind of subjection to authority, and the presence of tendencies to seek constant alterations of environment as is revealed in the frequency of changing occupations—even wives! This "fracture personality" was contrasted by Dun-

* Dunbar, Flanders, *op. cit.*

bar with the kind of person who develops coronary occlusion. The "coronary personality" tends to be self-disciplinary and to stick to one occupation, usually his first one, for many years, working long hours until success has been achieved. The previous medical histories—as obtained on admission to hospital—of patients with coronary disease and of patients with fracture showed striking differences. In the patients with coronary disease, accidents formed only 6 per cent of the previous illnesses, but in patients with fracture, accidents formed 76 per cent of the previous illnesses. Conversely, in the coronary patients the existence of previous "diseases" was about five times greater than in the fracture patients and the majority of these diseases were of the nature of psychosomatic affections.

A psychosomatic approach is also of value in appreciating how certain persons who have experienced an accident and received appropriate orthopedic treatment are still unable to become rid of bodily disturbances. This applies not only to the hysterical perpetuation or exaggeration of symptoms but also to the true "traumatic neuroses" which are liable to occur in individuals with an obsessional personality: with special tendencies toward duty, continuous activity, perfection, complete reliability, and so on. Such persons also frequently provide a history of previous psychosomatic affections. Indeed an accident sometimes precipitates a psychosomatic affection instead of a traumatic neurosis. Among the affections associated with accidents Kardiner ⁴ mentions muscle spasms (? "fibrositis"), peptic ulcer, spastic colon, hyperthyroidism, hypertension, neurodermatosis, asthma, various allergic reactions, and diabetes. He refers to these as "the interrelated physioneuroses."

⁴ Kardiner, A. (1941), "The Traumatic Neuroses of War," *Psychosom. Med. Monographs* II, III, p 196.

A REGISTER OF CHRONIC SICKNESS

The prewar *Scottish Morbidity Statistics*—unique at that period in their scope and completeness—contain a special Register of Chronic Sickness. This provided medical details about all workers (aged sixteen to sixty-five) who had been on the sick list continuously for more than twelve months. The composition of this register in 1936 is indicated in Table I which gives the fourteen “designated diseases” which occurred most frequently on medical certificates as the reason for incapacity. Those fourteen labels account for 86 per cent of the persons on the register.

TABLE I, REGISTER OF CHRONIC SICKNESS IN INSURED
PERSONS (SCOTLAND 1935-36)

	Number	Percentage of Register
1. Insanity	6,438	21.2
2. Rheumatism	3,846	12.6
3. Circulatory diseases	3,481	11.4
4. Tuberculosis	3,400	11.2
5. Bronchitis	2,388	7.9
6. Other respiratory diseases	1,200	3.9
7. Neurasthenia	1,059	3.5
8. Injuries	1,034	3.4
9. Cerebral hemorrhage	719	2.4
10. Nervous debility	621	2.0
11. Peptic ulcer	570	1.9
12. Gastritis	564	1.9
13. Cardiac debility	437	1.4
14. Anemia	407	1.3
		<hr/> 86.0

As we scan the diseases listed in the table we realize that in all of them the application of the psychosomatic approach is

appropriate. The leading position occupied by insanity is remarkable. A visual picture of the relative frequency of those major "reasons for chronic incapacity" is provided in Figure 2 in which the various items of neurasthenia, nervous debility, and cardiac debility have been grouped together as "neurosis" and account for 6.9 per cent of the persons on the register.⁵

Insanity	21.2
Rheumatism	12.6
Diseases of the circulation	11.4
Tuberculosis	11.2
Bronchitis	7.9
Neurosis	6.9
Other respiratory diseases	3.9
Injuries	3.4

Figure 2, Showing Relative Frequency of the Major "Reasons for Chronic Incapacity" in Insured Persons in Scotland in 1936

THE EFFECT OF UNFAVORABLE PSYCHOLOGICAL ENVIRONMENT ON SICKNESS RATES

During the five years 1931-32 to 1935-36 Scotland was a "distressed area." There was much unemployment and because of the existing scales of monetary relief in relation to wages it was almost as profitable to be on the sick list as to work.

⁵ The burden of chronic sickness on the finances and resources of a community is not always generally appreciated. For instance in Scotland during the annual period 1935-36, 19,000,000 working days were lost through sickness in insured persons, but more than half of these "days of incapacity" were attributable to chronic sickness which accounted for 11,000,000 days, i.e., approximately 58 per cent. These figures take no account of the mass of chronic sickness which was the special care of the Poor Law Authorities.

and certainly more financially profitable than it was to be on the roll of able-bodied unemployed persons. The communal frustration of these years was clearly reflected in the sickness rates,⁶ the main effect being an increasing incidence of chronic sickness, that is, of incapacities lasting more than a year. "Incapacities" lasting less than a year increased in frequency by only 2 per cent (although the average duration of each incapacity increased by 11 per cent), but the incidence of "chronic sickness" during the same period increased by over 30 per cent. The nature of this increase in chronic sickness between 1931-32 and 1935-36 is provided in Table II.

Column B of this table shows the percentage increase in the various certificated reasons for chronic incapacity that occurred in these five years. The greatest rate of rise (100 per cent or more) was with respect to gastric disorders and nervous debility; the lowest (20 to 30 per cent) with respect to insanity, tuberculosis, and cerebral hemorrhage.

In no single instance was the percentage increase greatest in the oldest age group (55-65). In nervous debility, bronchitis, anemia, neurosis, injuries, psychosis, tuberculosis, and cerebral hemorrhage it was greatest in the youngest age group (16-34); and in peptic ulcer, gastritis, rheumatism, cardiac debility, and diseases of the circulation it was greatest in the middle-aged group (35-54). Although the actual numbers of chronic sick people in the older age groups was considerably higher than in the younger ones, the finding that the rate of increase in the diseases mentioned was greater in the younger age groups illustrates the statistical feature of "retrogression of the age peak occurring at a time of rising incidence" (*see* p. 66).

⁶ *Report on Incapacitating Sickness* (1937), No 6, H. M. Stationery Office, Edinburgh.

TABLE II, SHOWING CHRONIC INCAPACITY IN SCOTLAND (1931-36)

A		B				C	D
Certificated "Cause"		Percentage Increase (1931 to 1936) of Patients at Various Age Groups				Register (1936) Percentage Constitution	Order of Absolute Rise (1931-36)
		All Ages	16-34	35-54	55-65		

Note: The table is compiled from the "Chronic Register" and is adapted from data provided in the Sixth Report (pp. 39-52) on Incapacitating Sickness in the Insured Population of Scotland.

Column A shows the 14 certificated "causes" of incapacity which provided the greatest increase in the number of patients between 1931 and 1936.

Column B shows the percentage rise in respect of each cause at various age groups.

Column C shows the percentage constitution of the "Chronic Register" in 1936 and indicates that those 14 "causes" provided 86% of the total register.

Column D indicates the order of absolute increase in the number of persons allotted to each of the certificated causes; e.g. against "Rheumatism," which provided the highest increase, viz., 1500 persons, is placed the number (1), whereas against cerebral hemorrhage, which provided an increase of only 170 persons, is placed the number (14).

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In point of numbers the greatest increase of cases was found in rheumatism, diseases of the circulation, insanity, and bronchitis.

I have heard it suggested that the rise in chronic sickness during those years of industrial depression was an artifact rather than an actuality. The argument for this contention is as follows. If work is generally available many persons "with a chronic disease" take up jobs, whereas if no work is available they transfer to the "sick list" where (at least in prewar days) the rate of monetary relief was usually higher than if they had transferred to the roll of able-bodied unemployed. This explanation is a comforting one but it has a limited validity. It certainly cannot be accepted by any doctor who has personally handled, examined, and investigated such persons. Loss of employment may really "make a man ill," especially a man with virtuous obsessional characteristics, by provoking bodily disturbances which in turn may induce organic changes. (Compare the reputed morbid, even mortal, effect of abrupt retirement in middle-aged businessmen, who thereby lose their only active interest.) On the other hand the securing of suitable employment may in turn "make a man well." The growth of chronic sickness during the early 1930's was in essence no more an artifact than the rise in the suicide rate and the fall in the birth rate which accompanied it.

PSYCHOSOMATIC ASPECTS OF RECURRING SICKNESS

Psychosomatic medicine provides information of etiological relevance not only in many cases of chronic sickness but also in many cases of recurring illness which represent either the phasic recurrences of the same "condition" or its replacement

by one or more of those associated affections which provide the particular repertory of diseases peculiar to the individual. Illustrations of recurring illnesses with indications of the expense which they entail on public funds are seen in the following cases:

A female clerk, age twenty-six, seen in 1936. During the previous six years she had been on the sick list twelve times. The designated disorders from which she suffered and the duration of the incapacities were as follows:

- 1931 Anemia, 3 months.
 Anemia, 3 weeks.
 Influenza, 5 weeks.
- 1932 Gastritis, 7 weeks.
 Debility, 4 weeks.
 Rheumatism, 6 weeks.
- 1933 Rheumatism, 9 weeks.
- 1934 Fibrositis, 3 weeks.
 Neuritis 5 weeks.
- 1935 Bronchitis, 5 weeks.
 Debility, 5 weeks.
- 1936 Bronchitis and rheumatism, 13 weeks.

An ex-officer, age thirty-two, single. Joined the Services in 1935 and discharged in 1943 with a diagnosis of anxiety neurosis after being interviewed by a psychiatrist.

- 1935 Frequent nose bleedings. Various short periods in hospital.
 Appendix removed for "chronic appendicitis," 8 weeks in hospital.
- 1936 Urticaria, 4 weeks in hospital.
 Fibrositis left shoulder, 5 weeks.

- 1938 Peripheral neuritis (but no organic lesion discovered), 8 weeks.
Frequency of micturition and "cystitis" but neither pus nor organisms found in urine, 9 weeks.
- 1940 Generalized pains in muscles and joints but no upset of temperature, 2 months.
- 1941 Recurrence of "cystitis," 3 weeks.
- 1942 Recurrence of generalized muscle pains, confined entirely to the left shoulder, arm, and leg.
- 1943 Breathlessness on exertion with precordial discomfort and noises in the ears. At first diagnosed as effort syndrome, on account of which he was referred to the psychiatrist, 3 months.

Chronic sickness. An analysis of available statistics of morbidity confirms clinical expectations in showing that an adverse psychological communal environment increases chronic sickness and thereby renders a population more and more unfit for work—as confirmed by medical certificates. This is a phenomenon which all the refinements that may be introduced into the standards of medical certification cannot succeed in disguising.

A diagnosis of an increasingly frustrating communal environment might therefore be made, among other things, from the following findings: (a) an increase in the labels known to cover psychosomatic illness as well as in those designated chronic diseases in which the application of the psychosomatic approach provides information of partial etiological relevance; (b) the greatest rate of increase in invalidism occurs in the younger age groups.

Recurring illnesses. An adverse psychological communal

environment might be expected to produce not only an increase in chronic sickness in the population affected but also an increase in recurring illnesses which would be revealed by (a) an increase in the number of incapacities recorded in the population affected and (b) a larger period of time spent per individual on the sick list. These expectations may, however, be modified by the implications of mass unemployment on entitlement to sickness benefit under the Insurance Act. Thus when jobs are scarce persons suffering from recurring illnesses—and many of these have socially inadequate personalities—tend to lose their occupation, become unemployed for prolonged periods and fall out of the National Health Insurance Scheme to lapse into the care of the Public Assistance Departments. (Insured persons who remain chronically sick continue, however, to receive their Insurance sickness benefit and remain on the list of insured persons.)

These considerations may have some bearing on the findings already mentioned that during the period 1931–32 to 1934–35 the Scottish Morbidity Statistics showed an increase of only 2 per cent in the incidence of incapacities, although the average duration rose by 11 per cent, whereas the incidence of chronic sickness increased by 30 per cent. The influence of recurring illness may, however, appear more clearly in the statistics relating to special social groups, as in the case of the underground miners to be discussed later.

Therapeutic considerations. These conclusions have an important bearing on treatment. If, at the onset of their illness, patients suffering from these diseases are regarded solely in terms of physical medicine—psychological and social examination being omitted—they may be subjected to routine physical treatment in terms of mechanism only. This may have the ef-

fect, of prolonging the invalidism and fixing the symptoms—perhaps even for life. Examples of such routine procedure are perennial alkaline powders for peptic ulcer, course upon course of physiotherapy for “rheumatism,” or successive nasal operations for bronchitis. The risk of fixing the symptoms is increased whenever therapy becomes very intensive, very elaborate, or very impersonal, and today when ever-growing facilities are available for treatment of this kind there is a danger, if the significance of much chronic and recurring illness remains unrecognized, of manufacturing invalidism on a scale hitherto unknown. In this connection the valuable investigations of Dunbar⁷ may be mentioned. She made a statistical investigation into the results of applying simple psychological treatment to patients admitted to hospital with coronary disease, diabetes, and allergy. The follow-up period extended from two to ten years. She found there was a marked difference between the patients who had been treated by simple psychological methods in addition to the routine medical treatment compared with patients not so treated. The chief difference was in the ability of patients in the first group to *remain well even though exposed to the same external difficulties and readmission to hospital was rarely necessary*. In the second group, however, the majority had *recurrences of the original illness and required to be admitted to hospital not only for these but also because of the development of further “new” illnesses* which were of a psychosomatic nature.

When we recall that among the prewar insured population chronic sickness accounted for more than half the working days lost through illness (and this takes no account of the mass of chronic sickness falling under the care of Public Assistance

⁷ Dunbar, Flanders, *op. cit.*

Departments) we begin to realize the appropriateness of McKinlay's * remark that: "The efficiency of a medical service must ultimately be judged by the standard of health of the people rather than by the nature and amount of the facilities available for its preservation."

* McKinlay, P. L. (1937), "Morbidity in the Insured Population," *J. Roy. San. Institute*, 58, p. 374.

CHAPTER 5

Ontogenetic Theory and the Psychosomatic Affections

THE CONCEPT of a psychosomatic affection, as described in Chapter Two, referred to various fields of discourse—featural (phasicity, associated affections), etiological (family history, “personality,” sex, upsetting events), and epidemiological (variations in prevalence). These separate items are, however, related “in reality.” To appreciate their interdependence we require to take account of growth or *ontogenesis*, that is, the progressive unfolding of a “life” in historical time in accordance with the orderly mode of development characteristic of its species. Viewed from a physical viewpoint, growth is seen in terms of physical development. Viewed from a psychological viewpoint, it is seen in terms of emotional, mental, and social development. A life may be frustrated (Latin *frustra* = in vain, brought to nought), even terminated, by its encountering noxious physical factors—traumatic, nutritional, chemical, microorganic—or by encountering noxious psychological factors which through their psychological, psychosomatic, and psychosocial effects impede its mode of emotional development. That both the environment in its changes and life in its unfolding may be viewed not only in their physical but also in their psychological aspects is a basic consideration of psychosomatic medical theory.

The ontogenetic theory of the psychosomatic affections now

to be described is derived from many sources. It is to be regarded as tentative because much detailed knowledge necessary for an assured formulation is still lacking. The ideas it provides are, however, useful as an aid in the investigation and comprehension of the biographies of individual patients and are of service in the epidemiological interpretation of the incidence of these disorders. The description, therefore, in spite of its imperfections may be regarded as having at least some correspondence with reality.

The formulative item of a "positive family history" suggests, as was previously pointed out, that genetic endowment might be defective and thus be a characteristic causal of a psychosomatic affection. This by itself, however, would be inadequate to explain how the incidence of these disorders in Britain increased considerably over a short space of years. Irrespective, therefore, of any causal role played by "inherited constitution," the fact of variations in the prevalence indicates that due regard must be paid to the etiological significance of environment viewed in its psychological aspects.

EARLY EMOTIONAL DEVELOPMENT AND ITS FRUSTRATION

THE INTRAUTERINE PHASE

From the physical side the influence of the intrauterine phase of the maternal medium in affecting growth and in determining the realization of inherent potentialities is now well recognized. Adequate feeding of the expectant mother is a potent factor in reducing the rates of miscarriage, prematurity, and infant mortality and in preventing anemia and faulty dentition in infancy. In virtue of the "common endocrine pool," the fortunes of the mother and child are

closely related. (For example, if the pool receives an increase of pituitary hormone—as may happen when the mother has diabetes—the growth of the fetus may be so modified that it matures at about thirty-six weeks instead of forty, with the result that it may be too large to be born alive.¹ The occurrence in the mother of the virus infection called “German measles” during an early critical period of pregnancy is believed to affect early ontogenesis in such a way that the infant may be born with a “congenital” structural abnormality.

On the psychological side the influence of the intrauterine phase in affecting growth is still largely undetermined. A recent American research² showed that when the mother is under emotional stress the measurable rates of kicking and of squirming movements of the fetus become altered and when this is intensive or prolonged the child at birth may have an undue tendency to gastrointestinal dysfunction. In this connection mention may also be made of the clinical impression (which has not yet been subjected to statistical testing) that patients who develop recurring depressive states in adult life frequently provide a history—if this can be obtained and confirmed—showing that the mother was grievously emotionally disturbed during the intrauterine phase of the patient, a common “cause” for such deep-seated perturbation being the death of one or more of her previous children or a period of excessive anxiety associated with the welfare of herself or the husband. An interesting point is that when there are several members of the family surviving, the one who develops the depression is the one during whose intrauterine phase the mother was so evidently abnormally upset. Similar biographical find-

¹ Bigley, M. A. M. and Avery Toner, F. (1944), “Pregnancy and Diabetes,” *Brit. Med. Journal* I, p. 360.

² Sontag, L. W. (1944), “Differences in Modifiability of Fetal Behavior,” *Psychosom. Med.* VI, p. 151.

ings, though to a less spectacular degree, are not uncommon in duodenal ulcer.

Biological time. That the intrauterine period may be of really overwhelming significance in determining the psychosomatic fate of the individual is suggested by the work of Du Nouy on *Biological Time*^{*} in which he described experiments on the rate of wound healing and of tissue growth. He concluded that there was some correspondence between the velocity of cellular growth and the primitive inner sense or awareness of duration. Thus if a solar year is experienced by the individual at age fifty as equivalent to one unit of time, then at age ten it is experienced as four times as long and at age five ten times as long. Continuing the curve further backward (though Du Nouy did not stress this) it would seem that at the age of one, a solar year would be experienced as about 500 times as long and at some stage during intrauterine existence as ∞ (infinity) times as long, that is, as either timelessness or eternity. Irrespective of whether Du Nouy's conclusions are valid, the subjective experience of the accelerating rush of time with the transit of the years of one's life is a fact that befalls and must be accepted by every human creature. Compare Wordsworth's lines from his poem *To a Butterfly*:

We'll talk of sunshine and of song
And summer days when we were young,
Sweet childish days that were as long
As twenty days are now.

"Very old are we men," wrote another poet, and as we glimpse this way of looking at these things, we surmise that there may be something after all in the "old wives' tales" that

^{*} Du Nouy, L. (1936), *Biological Time*, Methuen, London.

the emotional state of the mother has a highly significant bearing on the future personality of the child, inasmuch as this influence operates over the shadowy millions of years during which the child, within the maternal incubator, recapitulates, more or less, the evolution of life upon mother earth.

THE PHASES OF INFANCY

For descriptive purposes it is useful to divide the temporal unfolding of a life into a number of phases to each of which is ascribed certain drives actively directed toward a particular series of objects or goals. In infancy three main such phases have been abstracted, though in reality they overlap. Undue frustration at any phase is experienced with feelings known as anxiety (the primitive or infantile form of nameless fear attending a threat of extinction or obliteration of the self or of valued or loved objects) and it renders more difficult the appropriate unfolding of the succeeding phases in childhood, adolescence, and maturity.

First phase of emotional development. The child is born with active drives to receive love from The Mother—the life giver, the earth goddess—as represented by food, bodily contact with its warmth and shelter, and nursing care. If these drives are unduly frustrated, that is, neither satisfied, worked through, nor lived out, the “life” experiences not only an excess of anxiety but retains within its being an unexpressed hunger for material mother love which may be represented physiologically by an undue tendency to gastric and gastrointestinal dysfunction. Similarly if the expiratory cry, the infant’s call for comforting or reassurance, is frustrated by a rejecting mother figure, then the early need for spiritual mother love is not lived through and the individual retains within its

being an unexpressed crying which may be represented physiologically by an undue tendency to bronchial spasm.⁴

If these ideas seem fantastic, there are other converging considerations. The gastrointestinal and respiratory systems are at birth immediately exposed to noxious influences of the physical, chemical, and microorganic environment. It is therefore not surprising that the age group under one year provides the maximum frequency of pneumonia and gastroenteritis as reasons for illness and death. But at birth these systems also begin to operate for the first time, and their functioning is not immediately stabilized. For some time, therefore, they are peculiarly subject to dysfunctionings which (as any observant family doctor soon discovers) are often readily referable to the frustrating outward actions and inward attitudes of the mother or mother substitute. Equally, therefore, it is not surprising that dysfunctions of the gastrointestinal and respiratory systems also show their highest incidence rate during the first years of life, the age group under one year providing the maximum frequency of "digestive upsets" and of respiratory arrhythmias including asthma.⁵

Another "system" which is exposed at birth to noxious outer influences is the skin, whose functioning is also liable to disturbances from the ingestion of a variety of foodstuffs. Irrespective of such external agents, however, the skin also responds actively to emotional upsets and the maximum frequency of many dysfunctions of the sweat and sudaminous glands occurs in the first year of life.

Second phase of emotional development. The second phase of infancy (roughly six months to three years) may be regarded

⁴ Alexander, F. (1941), "Psychogenic Factors in Bronchial Asthma," Part I, *Psychosom. Med. Monograph* IV, p. 58.

⁵ Bray, G. W. (1934), *Recent Advances in Allergy*, Churchill, London, 2nd ed., p. 193.

as one of exploration, manipulation, and primitive creation; that is, its drives are directed toward the aggressive mastery of objects. The infant explores the outer world and now attempts to "take it in" not only orally as before but also through touch and manipulation. At first it behaves like a land-grubbing animal—sniffing, crawling, hoarding, possessing things, enjoying dirt, fingering, and, inevitably, also destroying—but later, instead of "knocking down the bricks" it attempts to build them up.

The manifestations of this phase become evident about the fifth or sixth month, perhaps in association with the myelination of the pyramidal tract and certain areas of the cortex.*

The period of about the fifth or sixth month marks, therefore, the transition from a vegetative existence to a locomotor one. Movements of the "voluntary" muscles which are at first mediated by the primitive brain and whose action in the extremities is confined to "parallel swimming movements" now begin to become unilateral, alternating and directed toward outer objects. The ancient expressions of refusal and obstinacy, for example the backward stiffening of the neck, spine, and joints of the shoulder and pelvic girdles, are gradually, as the infant begins to sit up, replaced by attempts actively to attack, fight, and destroy. Not for some years, however, do the voluntary (i.e., new-brain instigated) movements become stabilized, and during the period of this relative instability of the exploratory phase, characteristic dysfunctionings in the

* At birth, myelination of the cortex is confined largely to (a) the kinesthetic region around the fissure of Rolando—hence the infant's sensitivity to sudden movement or lack of support; (b) the region connected with the olfactory senses; (c) the visual areas at the tip of the occipital lobe. So far as voluntary muscle movement is concerned the infant may be said to be "decorticate," its muscular activities being mediated by the basal ganglia (the old brain) and the primitive motor tracts. The great motor pyramidal tract remains unmyelinated until about the fifth month.

form of unco-ordinated contraction and spasm of the voluntary muscles are liable to occur.

The many manifestations of this exploratory phase are necessarily associated with destruction of objects—analysis being a necessary prelude to synthesis. But what to the child are still only partly co-ordinated movements may seem to the onlooker to be destructive ones, and parents who thereby become exasperated tend to curtail unduly the activity of the child and so make it angry. If this natural responsive anger is in turn frustrated by continuous parental attack, it overflows into rage directed against the parents. The bodily expression of this hostility, however, being checked by the parents, is suppressed in the child. Children thus “tamed” retain within their being unduly large “stores” of unexpressed (and unexpressible) rage which is represented physiologically by a predisposition to arterial hypertension. Correspondingly, prolonged angry resentment seems to be associated physiologically with a tendency to undue spasm of voluntary muscle fibers, and suppressed blind fury by, perhaps—though this is a surmise—a tendency toward abnormalities of joint metabolism. In this connection may be recalled the immobilization and “grinding of the bones” that occur in rigid rage reactions.

During this phase, also, the child sooner or later encounters the problem of bowel and bladder control, procedures which are often experienced as a struggle against parental authority. Hatred engendered at this time is represented physiologically by an undue tendency to “let go” (at the wrong time) or to obstinately retain. For these reasons the earlier psychoanalysts referred to the second phase of emotional development as the “anal phase” and posited in addition a “urethral phase.”

In the second and third years of life “dysfunctions” of

arteries, muscles (perhaps joints), and bowels have their maximum frequency. These examples of unstabilized physiological activities are not, however, usually regarded as diseases but as anger flushings and palings, temper tantrums, including pummelings, heel drummings, kickings, and rigidities, and obstinate constipation.

Third phase of emotional development. This phase (roughly ages two to six) is associated with the increasing organization and expanding functioning of the cortex. The sense of being a person—the awareness of I-ness, called the ego—appears, and with it the ability to appreciate the relationships of objects and events in time and space. Like all developing functions these new-brain “neopallial” activities are not at first stabilized.

The drives associated with this phase include the growing drive (*a*) to be approved and noticed as a “person,” which is clearly a development of the first phase with its drive to receive love actively; and (*b*) to take possession of other persons, which is clearly a development of the second phase with its drive toward active exploratory and manipulative contact. These tendencies have an added component which is of a definitely sexual nature, even in its narrower sense, as is shown, for instance, when the child desires especially to look toward and exclusively possess the parent of the opposite sex—a situation which necessarily involves concomitant destructive impulses directed against the other parent or against rival brothers and sisters. If the drives of this “genital” phase, or more properly the “phase of the young person,” fail to obtain adequate expression the child retains within its being large stores of sexually tinged excitement and thrill which are represented not so much physiologically as neurologically and psychologically.

Neurologically, there is a tendency to retain “unusual,”

that is, unstabilized, innervations of the voluntary muscular and the sensory perceptive systems, which may be manifested in the form of hysterical paralyses, spasms, anesthetics, and pains. There may also be a tendency toward unusual activities of those automatic functions which in varying degree are subject also to voluntary control—such as eating, vomiting, breathing, coughing, and controlling or relaxing the lower bowel or bladder. It is possible, too, that certain neurotrophic lesions of the skin, for example pompholyx, are dependent on hysterical mechanisms. (Hysterical bodily phenomena have resemblances to what can be achieved by Yoga practices as well as to certain somatic occurrences in mystical and mediumistic states.)

Psychologically, the child tends to live unduly in fantasy and daydreams, rather than in the harsher realities of time and space. The ego may fail to become firmly established in the sense that it remains labile, and the individual, not becoming, so to speak, fixed in his proper ego identity, changes his role with his life situation like an actor with different parts to play. There is a certain correspondence between lability of the ego and the temporary abeyance of the ego undergone by many persons exposed to the mass excitement of football games, political meetings, or evangelical gatherings. Lability of the ego is also related to the phenomenon called "identification," which finds its clearest example where an individual identifies himself with another and usually beloved person—as when a promising and acclaimed older brother dies a younger brother "becomes" him.

The neurological and psychological "dysfunctions" associated with frustration of the genital phase are neither so archaic nor so deep-seated, either ontogenetically or somatically, as the physiological dysfunctions of the pregenital

phases. But they are obviously primitive in that the unusual innervations of the central nervous system and the unusually intense fantasy life seem to represent an anomaly of integration of the functions of the old brain with the new. This is suggested by the finding that the incidence of hysteria is relatively high in mental defectives and in "uneducated" persons.

EARLY FRUSTRATION AND ADAPTATION

The turning-in instead of the living-out of emotional energy is associated physiologically with a tendency toward disturbances in the innervations of the primitive vegetative nervous system and psychologically by disturbances of inner feelings. The young life that is unduly frustrated is therefore in a painful predicament. It cannot really flee from the parents that sustain it and provide its basic needs, for the deprivation of these is experienced as a threat of obliteration, that is, as anxiety. And being small and defenseless it cannot really fight those same parents, those towering, omnipotent, godlike figures who are also the source of its frustration. Yet somehow it must adapt actively to its environment. How is this accomplished?

In the early phase of complete dependence it can do little toward active adaptation and may even react to an unsatisfying maternal environment by entering a state of *withdrawal*—as if, feeling its surroundings hopeless, it was abandoning interest in extrauterine existence and surrendering to the pull of some backward drag or involutionary impulse whose retrogressive goal was the breastless womb. Withdrawal is usually attended by considerable physiological disturbances especially of the gastrointestinal tract and may actually result in death.[†]

[†] Ribble, M. A. (1943), *The Rights of Infants*, Columbia Univ. Press, p. 12.

These considerations seem to have an ontogenetic bearing on the etiology of certain cases of recurring depression commencing in adult life.

But with the onset of the second phase active emotional adaptation becomes possible not only to the anxiety and other painfully distressing tensional states—insecurity, impotence, rage, guilt, isolation, depression, or unbearable excitement—but also to their outer sources, namely the parents and siblings. The young life therefore devises, but not consciously, a way of living that avoids as far as possible disturbing events and situations and seeks to discover neutral or pleasurable ones. The trends for living thus adopted are known technically as “defenses” because by their means the infant can be thought of as defending itself against pain and distress. They are not, however, merely passive reactions. They represent active adaptation and in this respect they are essentially offensive defenses.

Every child naturally experiences frustration which indeed is a basis for conditioning to living in society. In one sense defenses therefore are not abnormal. But they may become abnormal if frustrating forces are applied too early, too harshly, or too intensively and irrespective of biological rhythms. Under such conditions the resulting defenses may be so overdeveloped, so rigid, and so fixed that they continue to operate irrespective of the actualities of the life situation. Hypertrophy of defenses may indeed be regarded as in itself a disease and it is to this exaggeration that the word “defense” is generally applied.

Defenses are sometimes classified by dividing them into two broad groups—those which take the form of avoiding social contacts and those which take the form of maintaining them but in restricted or stereotyped ways. (Examples of defense by avoidance are overshyness and retirement; excessive indulg-

ing in daydreaming and fantasy; being stand-offish or superior; being overindependent; dodging authority and avoiding responsibility. Examples of restricted communication are being always "good"; being always submissive and self-effacing; being always smart and clever; being continuously busy; being always the boss or the authority.) But from the ontogenetic viewpoint, it is more important to distinguish these defenses in a psychodynamic way: those founded during the second phase and those founded during the third phase.

Undue frustration of the second phase may give rise to that important group of defenses known as *obsessional trends* which, as we saw in Chapter Two, have a special etiological relevance to psychosomatic organic diseases. Their origin might be described as follows. The child who during this phase is seriously checked and frustrated is compelled to suppress the hate originally directed against the parents. The hatred, being in-turned, is directed against the child itself so that it lives in a state of chronic unexpressed and unexpressible hostility, unlovely and horrid to himself and to others. This intolerable situation of being obsessed is attended not only by distressing anxiety but also by such feelings as guilt (biting the hand that feeds it), grief (loss of the loved object), isolation (being connected with others neither by the bond of loving nor of being loved), and depression. To assuage the devils inside as well as the gods outside, the child may be driven to adopt certain devices for living which are of the nature of propitiatory rituals. For example he must never lose his temper (or something very dreadful may happen); or he must always be clean (for dirt is dangerous); or always be orderly (this defends him against the wrath of the gods); or always be truthful; or always do his duty; or always be on time in performances; or always be busy; or never owe anybody anything—not even a bean; or

keep himself to himself; always be perfect, and so on. By adopting such obsessional trends as modes for living the child achieves a degree of adaptation to his environment—but at a cost, for by so doing he cuts himself off from his inner emotional life, especially from its destructive hate which would, given time, have become available for construction and self-assertion. And he also cuts off his inner emotional life from other people, who come to regard him as retiring or “stiff” or lacking in spontaneity; and in adulthood as a “safe,” conscientious, methodical, punctual worker.

When the drives of the third phase (the desire to give love to and receive love from a person) are unduly checked or obstructed the in-turned, sexually tinged energy may become so painfully exciting as to be unbearable. As a defense the child may adapt by the way of living known as “histrionic.” Examples of histrionic trends have already been given in Chapter Two.

By the time early adult life is reached the general *modus vivendi* has become more or less settled and fixed, the personality trends more or less predictable, and their modification difficult to achieve spontaneously.

Finally we may note how all defenses, irrespective of their phases of origin, retain a notable quality of vital drives, namely their “inner necessity.” This means that the individual is actually driven to live as he does by blind inner forces derived from experiences of early childhood, of whose existence and nature he is consciously and completely unaware. Some of the defenses give rise to character traits which are estimated as socially virtuous. “Yet many persons possessing them are virtuous, not by choice, but by an inner compulsion against which they cannot, even if they would, rebel.”

THE BREAKDOWN OF ADAPTIVE DEFENSES
AND THE EMERGENCE OF DISEASE

If the primary phases of infancy and the succeeding "early social phases" (*see* notes in Appendix) are worked out and lived through successfully—that is, if the vital drives obtain adequate liberation in outward expression—the individual on reaching adult life may be said to have relatively small "stores" of anxiety, inner insecurity, rage, guilt, sexually toned thrill, and so on. In this case the defenses are neither too rigid nor overrestricting nor unduly histrionic, and the person is likely to work through the later phases of life spontaneously, healthily, and efficiently; in short, to adapt well to the adult world.

If the *pregenital* phases have been unduly frustrated and the succeeding phases also obstructed the individual, by the time adult life is reached, has probably large stores of anxiety, accompanied by overgrown defenses which, though impairing his adaptability, have the merit, for him, of preventing the conscious experiencing of disturbing inner feelings. Unfortunately, when he encounters circumstances or events which are repeatedly or severely upsetting, his stores of anxiety increase and he responds by a still greater exaggeration of his defenses, until a point is reached when these can no longer be sustained. With the failure of defenses he becomes exposed to the activity of those very states of unexpressed emotional tension against whose distressing inner feelings the defenses originated. From the psychological viewpoint these reactivated tensional states are seen as "emotional constellations" compounded of various proportions of fear, rage, hate, grief, guilt, and so on, and from the somatic viewpoint they are seen

as particular physiological patterns of dysfunction characterized by particular muscular, vasomotor, visceral, and secretory changes. To the clinical technician they appear in somatic terms only—either in the form of “functional disorder” or, in the case of its end results, as a designated organic disease in which morbid physiology has been the precursor of morbid anatomy. A mode of defense also associated with undue frustration in the early phases is *delinquency*. In many cases it may be regarded correctly as a defensive offense! Whereas the domestic milieu favoring the formation of obsessional trends is usually one where the parents are virtuous, moral, or even “model,” that favoring the formation of delinquent trends is one which is “bad”—quarreling, drinking, whoring, and so on. The infant exposed to this environment experiences much anxiety, fear, and hostility, but because of its different nature his mode of adaptation is different. Briefly and inadequately put, the hostility first out-turned against the frustrating and checking parents and later in-turned against himself, instead of being diverted to the formation of obsessional trends, is expressed outwardly against “society.” In this way the child succeeds, at least partially, in neutralizing the parents as sources of serious inner disturbance, for now it is *he*, and not they, who is bad.

In cases where one or both of the parents are not neutralized as sources of anxiety the child may continue to vent his hostility in the form of open *defiance and rebellion*. Though this becomes partially latent during the earlier social phases, it may reappear at adolescence in a displaced form, as manifested by bitter opposition to the prevailing arrangements of society with respect to law, order, economics, religion, and so on. The fanatical political rebel, for instance, is usually found to have had serious early parental difficulties especially in connection

with the father. From the ontogenetic viewpoint his adverse adult attitudes are a substitute expression of his infantile hostility toward paternal authority.

The adaptation of the child at the third phase is determined by its experiences in the preceding phases. We shall consider here only the case in which frustration of the genital drives has favored the formation of histrionic defenses. When an individual with strong histrionic trends encounters in later life circumstances or events which are experienced as repeatedly or severely upsetting (as the absence of an audience, or its hostility or indifference, or repeated exposure to physical danger), his stores of sexually tinged excitement increase, and concomitantly his defenses become exaggerated, until finally a point is reached when the stage-player role can no longer be sustained and he is exposed to the activity of the "unstabilized" innervations of the central nervous system. Regarded somatically, the resulting bodily symptoms appear as neurological dysfunctions. Regarded psychologically they often seem to have a "mental" component in that they represent the frustrated drives or desires of the third phase in a disguised or symbolic form. Moreover, the illness itself often appears as an attempt to serve a purpose or achieve a goal in the life of the person. For example it may obtain for him notice and sympathy; it may act as an explanation of failure in occupation, profession or athletic prowess; it may secure a pension or compensation; it may act as a revenge which punishes a loved person who, like the original parent, seems to have let him down; or it may allow him to escape from an intolerable situation—as happens frequently in the case of workers in "dangerous occupations." (In this connection it should be remembered that a dangerous occupation may not only induce heroism among its workers as a group de-

fense but also, just because of its danger, it may actively attract "histrionic heroes" to enter its ranks. Mention should be made also of "histrionic heroines," some of whom are drawn to enter the nursing profession because of its "thrill.") The feature of purpose that appears in hysterical illness is not seen in psychosomatic affections precipitated by the breakdown of pregenitally founded defenses. This distinction is probably related to the time of the ontogenesis of the "ego"—the sense of being a person and of the "I" that desires not appearing till the third phase.

Although in theory the feature of purpose does not appear except in hysterical illness, in practice the position is more complicated, since both obsessional and histrionic defenses may exist in the same person. Individuals with predominant obsessional defenses may also present histrionic defenses, and vice versa. If the former develops psychosomatic affections it sometimes happens that these are seemingly maintained—or at least their symptoms are reproduced—through the medium of hysterical innervations. A good example of this is found in cases of asthma in which an attack so often occurs as if in avoidance of an awkward situation or for the achievement of a purpose. This hysterical reinforcement is also found in some cases of "fibrositis" and of "gastritis." It also may have been an important factor in the "mucous colitis" that was once so common.

A further important consideration is this: defenses which are founded on frustrating experiences in the pregenital phases (as with obsessions, compulsions, authoritarianism), being ontogenetically older than the histrionic defenses, are more deeply woven into the psychophysiological structure of the organism. For this reason they are more resistant and enduring than the histrionic defenses, and their breakdown, which en-

tails the emergence of physiological dysfunction, usually occurs somewhat later in life. Thus an individual who has adopted a pregenitally founded way of living and who in adult life experiences domestic, occupational, or social circumstances as increasingly frustrating tends to work harder and harder, or to be more and more restless, or more and more particular, or to strive and strive still more, until even a minor upsetting event is sufficient to break down the defense and bring about failure of adaptation in the form of the emergence of psychosomatic affections (such as duodenal ulcer, "rheumatism," "bronchitis," disturbances of the blood pressure, coronary thrombosis, etc.) or of a depression—or of a series of such illnesses or symptom complexes in the form of "associated affections" (*see also* note on Industrial fatigue on pp. 75-76).

Predisposition to particular bodily disturbances may remain latent. But if, in later years, an individual develops certain symptom complexes, we may surmise that he has encountered a life situation that has provoked in him an emotional response of a kind which is an echo of those primary upsetting experiences in earliest childhood that had rendered him somatically susceptible in a special way and to which he has again reverberated by developing disturbances of those patterns of functioning originally sensitized toward disorder at the time of their natural developmental instability.⁸

⁸ Lack of awareness of this synoptic viewpoint is responsible for much faulty inference, even in research. For example, an observer who investigated a series of patients with peptic ulcer found that only a small percentage had an obvious anxiety state—as indeed we should expect. He inferred from this, however, that the low percentage of obvious anxiety indicated that the psychological approach had little bearing on the etiology and treatment of this disease! At the same time he emphasized his other observation: the significantly high prevalence of obsessional trends in the patients examined.

PART THREE

The Sick Society

CHAPTER 6

Epidemiology

AN EPIDEMIOLOGICAL interpretation of the prevalence of any disease must take account of its biological etiology. What is known of the "causes" of the psychosomatic affections whose incidence increased? In the etiological field of the person a relevant characteristic is the presence of marked obsessional trends and these, together with an undue tendency toward psychophysiological dysfunction, are determined (according to the ontogenetic theory) by excessive frustration of the life in its pregenital (or prepersonal) phases. In the etiological field of environment relevant factors are upsetting events or life situations which precipitate in clinical form the predisposition to a psychophysiological dysfunction.

A rise in the incidence of the psychosomatic affections could therefore be brought about by changes in the milieu (*a*) of infancy of a kind that increasingly frustrate, both extensively and intensively, emotional development during the pregenital phases and/or (*b*) of adulthood of a kind that increasingly provoke, both extensively and intensively, disturbing emotional reactions such as anxiety, insecurity, exasperation, resentment, isolation, and so on. Further, any such changes whether in childhood or adulthood would have to affect significantly the "masses," that is, the laboring and artisan classes who compose by far the greater proportion of the population and who thereby dominate the major trends of its vital statistics.

The changes required by etiological findings and ontogenetic theory to "explain" an increased incidence of the psychosomatic affections did in fact take place in the "child world" and the "adult world" of the masses between the end of the nineteenth century and the outbreak of World War II. How considerable these changes were is revealed by contrasting the milieu of the child and the environment of the adult, viewed not in terms of their physical, chemical, or micro-organic effects but in terms of their psychophysiological effects, in the seventies of the nineteenth century and the thirties of the twentieth century.

CHANGES IN THE WORLD OF THE CHILD

MILIEU OF INFANCY IN THE SEVENTIES OF THE NINETEENTH CENTURY

Breast feeding was universal, or almost so. In cases of difficulty wet nurses were used. They were readily available, since one infant out of about five died before reaching its first birthday. (The nursing bottle, known in England since the previous century, was used only by the wealthier classes. Teats were either real calves' teats preserved in spirit or were made of chamois or parchment, the artificial nipple being attached by thread to the neck of the bottle. Nothing was known about sterilization, and the mortality among bottle-fed infants must have been considerable. Not until the supply of rubber became more plentiful toward the end of the nineteenth century did the nursing bottle become popular among the working classes.)¹ No special attention was paid to the times of breast

¹ Taylor, F. Sherwood (1941), *The Century of Science*, Heinemann Ltd., London.

feeding, and the occasions of suckling were determined by the desires of the child or the mother. This was facilitated by the prolonged body contact between them, the baby being carried about by the mother in the folds of a shawl or plaid. A wooden-wheeled baby carriage was the prerogative of the wealthy but was too expensive for the working classes. Its usage was condemned by the doctors of the period on the ground that it denied to the infant the comfort of strong, loving arms—"a baby in arms," they said, "should be a baby in arms." (The modern type of perambulator did not appear until the eighties.) At night the infant might sleep in a wooden rocking cradle, but often it lay alongside its parents or siblings—a practice that, especially if the parents were drunk, which was not rare in those days, often led to its death from "overlaying." (Death from overlaying was not taken too seriously, and the law of the period regarded it merely as an offense and not as a crime.) As for clothing, the infant was "swaddled"—that is, wrapped in bindings—even sewn up for months at a stretch. Washing of the infant was thought to be dangerous.

Little was attempted in bowel training until the second or third year. Infantile incontinence was of small moment to the generations who, before the introduction of water sanitation, possessed an easygoing tolerance of fecal smells. Why worry? The child, given time, would naturally develop control of the sphincters and discover for itself the advantages of its own unaided accomplishment. Floors were either of stone or bare boarding, carpets being scarce and linoleum unknown. Furnishings were few but substantial, a deal table and a few wooden stools or chairs, apart from a straw bed, often comprising all the furniture. The toddler had therefore a good deal of freedom not only to defecate at its pleasure and leisure but also to explore and manipulate objects.

The size of the family was large, children were plentiful, and juvenile nurses and playmates abounded. Toys were simple and few, and toddlers found natural pleasure in amusing themselves; hence early social impulses found a ready fulfillment. Adults made little fuss over children, who were neither expected nor encouraged to express themselves as "young persons." Children, it was said, should be seen but not heard.

There was no compulsory education, and schooling cost money. In certain industrial districts half of the children of our "modern school age" were unable to read. Instead of being sent to school, many children were sent to work. (The employment of children under nine years of age had been prohibited by an Act of 1833, which, however, was not enforced.) Even in the sixties children aged nine to thirteen could still be employed legally for forty-eight hours a week.

The structure of the family was patriarchal. Father dominated both mother and children, to whom he issued his fiats and upon whom he freely expressed his moods. The God of the period was modeled upon father—someone terrible, unpredictable, and all-powerful. Priests, parsons, and preachers threatened young children with the fires of Hell. Not till the end of the century, when the patriarchal setup was beginning to loosen, did a less sadistic deity emerge, the angry Fire God in heaven becoming replaced by the gentler "Friend for little children above the bright blue sky."

Viewed physiologically, the child's environment was appallingly bad. Dirt, absence of pure water supply and adequate sanitation, overcrowding, bad housing, poverty, malnutrition, and long working hours—all contributed to tragically high rates of bodily impairment and death. Viewed psychologically, however, the child's environment was not so bad, in that during the early years emotional growth was largely permitted to de-

velop and unfold in its own way and in its "own good time." The vital drives of the first and second phases obtained, therefore, a fair degree of outward expression, and it may be surmised that those physiological dysfunctions and tensional states associated with emotionally induced "imbalance" of the vegetative nervous system were neither acutely provoked nor unduly prevalent. Not until the third (or genital) phase of infancy does there seem to have been any great frustration of emotional growth, and this took the form of ignoring the child—of seeing him and not hearing him—a custom which, together with the problem of father, may have a bearing on the apparently high incidence of hysteria in the Victorian era.

MILIEU OF INFANCY IN THE THIRTIES OF THE TWENTIETH CENTURY

When we contrast the milieu of infancy of the 1930's with that of the 1870's, we find it had undergone a change of the profoundest kind during the intervening seventy years. Infants were no longer reared "instinctively" or by natural impulse as modified from district to district in accordance with the traditions of their respective wise old women of the tribe. Instead we find a consciously directed communal effort to rear babies in accordance with the principles of the most up-to-date scientific physical hygiene. The procedure was not confined to the better-off social classes but, as a result of official propaganda and the establishing of child-welfare clinics, it became widespread among the masses also. The change represented an entirely new departure in the conditioning of infants. Nothing resembling it is to be found in the previous history of man. It had far-reaching social consequences not only in the cutting down of the previous appallingly high rates of infant mortality and in improving the expectation of life—

these effects had been anticipated—but also in modifying the foundations of “personality structure” of the newer generation—an outcome that had not been foreseen.

Breast feeding was practiced only partially. At least half of the infants were on the bottle by the time they were three months old, the proportion receiving artificial feeding being considerably higher in the urban than in the rural and remote areas.² The occasions of feeding in the bottle-fed (and in many of the breast-fed also) were determined not by biological rhythms but by the clock and the timetable. The child’s impulse to play at the breast was no longer fulfilled, and dummy teats, so popular earlier in the century “to keep the child quiet,” had by now been discarded as unhygienic. Body contact between mother and child was at a minimum. A large proportion of births, especially in urban areas, took place in institutions or hospitals, where the newborn baby was kept segregated in the “infant ward.” Shawls and plaids had disappeared as articles of feminine attire, and the “infant in arms” had become the “kid in the carriage.” The infant slept in a separate cot. Even spiritual contact between mother and child had been reduced. Thus if the child cried when laid down after its feeding, the mother was medically enjoined to leave it alone. This somewhat stern impersonal régime was, however, usually relieved by the daily bath and exercises, which the infant appreciated with joy, very evident to the onlooker.

Bowel training was not infrequently instituted from the second or third day of extrauterine life, and when the clock struck certain hours little pots were punctually applied to little botts. Water sanitation was general, and the population had become conscious both of dirt and of fecal odors. With the introduction of a relatively abundant supply of household

² *Report on Infant Mortality in Scotland* (1943), H. M. Stationery Office.

furnishings, carpets, bedding, and so on, the masses had also become possession conscious. Women vied with one another in having a "nice house." This ideal conflicted with a free expression of the infantile phase of exploration and destruction. The social tendencies of the toddler were also increasingly denied outlet. Many of the new houses were set apart from one another; families were becoming smaller; and playmates were neither so numerous nor available. The child therefore was drawn more and more against the parents, who began to feel they were never let alone, and their continuous reactive prohibitions and admonitions rendered the child inwardly insecure and outwardly "difficult," so long as it was unable to attain to the orderliness, tidiness, punctuality, dutifulness, and so on, demanded by the parents as a standard of behavior.

As young lives were scarcer, children became more noticeable and more precious. Consequently greater attention was paid to them, especially by the parents of *small families* who because of inner feelings of guilt felt they owed everything to the child, whereas in the Victorian age, as Gillespie * pointed out, children had been instructed that they owed everything to the parents, aside from God who created them.

The advent of automobile traffic created a new problem for the child. While still learning to walk he had to attempt to obtain a standard of attentive observation and motor co-ordination—of "traffic sense"—beyond the potentialities of functioning possible at a stage of cortical development which did not permit of the finer degrees of voluntary control.

At the age of four or five every child was dispatched daily from the home (usually to the great relief of the mother) to the communal nursery or day school, where within a few years it

* Gillespie, R. D. (1942), *Psychological Effects of War on Citizen and Soldier*, Norton, New York.

was competing with its coevals for "stars" or marks at tests or examinations—miniature ordeals which, if the parents had too much identified themselves with their offspring, occasioned in the child much shrinking, anxiety, and even panic.

The structure of the family was no longer patriarchal. Not that it had reverted to the matriarchal arrangement of prehistory. Instead, something entirely novel had developed—the attempt to base the family on the parental dyad, appearing in the role of pals, equals, and comrades. This neutralization of sex distinction in the parents was reflected in the retiral of Jove-Jehovah with his bolts from Heaven and of his counterimage with his furnaces in Hell. Even "The Friend for little children" so evident at the turn of the century was becoming dim and ineffective as children began to visualize the bright blue sky as a background for airplanes and to learn at school that life could not be maintained beyond the stratosphere.

Viewed physiologically, the response to the scientifically improved hygienic environment may be evaluated as good, in that child life showed a much higher rate of survival and of physical integrity, thus laying the foundations for an adulthood distinguished by an improved "physical health." But viewed psychologically, the infantile milieu was not so good. The oral and allied drives of the first phase of infancy were not adequately lived through or worked out, with the result that the child retained within his being an excess of deep-seated insecurity—in psychoanalytic terms large stores of unexpressed dependency. The drives of the second phase were likewise unduly curtailed from adequate outlet, the child retaining within its being large stores of unexpressed resentment and hostility. Some of this unliberated energy became diverted to the formation of obsessional trends; hence, a timetable or robotlike method of living became increasingly prev-

alent. Weiss and English ⁴ summarize certain features of this situation in relation to the American child of 1942 as follows:

There has been too little friendliness shown to the child and too much emphasis placed on his gaining control of himself. He is subjected to harsh discipline beginning with the period of bowel training. He is made to feel shame and humiliation if he does not quickly master bowel and bladder control. He is criticized if he does not achieve neatness, cleanliness, punctuality, memory for detail—in short, he is forced to live up to adult standards in all things at a very early age.

The relatively high degree of frustration operating during the two primary phases of infancy had definite psychophysiological repercussions. The "life," instead of being allowed to unfold naturally with the concomitant maturing of bodily order, was subjected to an imposed system of conditioning which prematurely provoked, or predisposed to, bodily disorders by inducing tensional states or dysfunctions in the gastrointestinal tract, the respiratory system, the cardiovascular system, the voluntary muscular system, and so on. The third phase of infancy, however, was probably less frustrated than in the previous century in so far as more notice and attention were given to children; the phallic father was no longer in fashion, having been replaced at first by daddy (who was kind) and later by pop (who was ineffective, even contemptible); and there was less positive indoctrination of the sense of sin and guilt before an all-seeing and almighty God.

This survey shows very clearly that the changes in the milieu of infancy that occurred between 1870 and 1930 were of a kind that tended increasingly, both intensively and exten-

⁴ Weiss E. and English O. S. (1943), *Psychosomatic Medicine*, Saunders, Philadelphia.

sively, to frustrate emotional development during the pre-genital phases of life. In accordance with etiological knowledge and ontogenetic theory this would have the effect of progressively raising the proportion of the population predisposed to "physiological" dysfunctions. The influence of this would not, however, be revealed immediately in the incidence rates of the psychosomatic affections, because precipitation of predisposition in clinical form does not usually occur until adult life—or at any rate until after adolescence. There would therefore be a lag period of at least twenty to thirty years between the general introduction of the alterations in the milieu of infancy and its obvious effects in vital statistics. Can we say when the revolution in infant conditioning became general in Britain? Unfortunately we cannot. It would seem likely that the new customs percolated slowly throughout the community and that the changes did not get under way on a large scale until some considerable time after the beginning of the twentieth century. Certainly it was not until World War I that the institution of child-welfare clinics became general. It seems reasonable, therefore, to surmise that the changes in the conditioning of infants did not begin to become widespread until after 1920 at least. On this assumption the incidence rate of the psychosomatic affections could not be fully affected by the alterations in the milieu of infancy until after 1950 at least. It may therefore be concluded that in so far as changes in the social conditioning of infants have been a factor in the rising incidence rates of the psychosomatic affections their full effects in this respect have still to become manifested.

The survey suggests also that the third or general phase of infancy was becoming increasingly less frustrating and this would have the effect of progressively lessening the proportion

of the population predisposed to those "neurological" dysfunctions known as hysteria.

Changes in the incidence rates of the psychosomatic affections do not, however, depend only on changes in the world of childhood. Consideration must also be paid to changes in the world of the adult—and to these we may now turn.

CHANGES IN THE WORLD OF THE ADULT

The world of the adult, so complex in relation to that of the child, cannot be described in terms of a short formulation. Its complexity became even more complex in the years following 1870, and many volumes would be needed to describe the particulars of its expanding elaboration. Fortunately it is not necessary for present purposes to catalogue the alterations in detail. All that is required is to indicate how the drives and impulses of the emotional life of the adult became increasingly disturbed, diverted, frustrated, or distorted in response to the progressively accelerating changes of the psychosocial environment. Nor is it necessary to attempt a quantitative assessment of the importance of each change.

Speaking broadly, and using metaphors for the sake of compression, the following are some of the tendencies discernible.

Increasing separation from outward roots in Mother Earth. The population became increasingly urban. Whereas in 1860 about 50 per cent of the people lived in rural areas, by the 1930's the proportion was only about 20 per cent. What part this progressive urbanization per se played we cannot assess, but we may surmise that it increasingly tended to cut off more and more persons from the times and tides of nature which instigate and exercise deep-seated emotional responses. It also

cut down opportunity for free muscular exertion in the open spaces and air, and subjected an increasing proportion of the community to regulation of their life in terms of clock time.

Increasing disregard of cosmic and biological rhythms. The growing indifference to seasonal and diurnal rhythms and the increasing dissociation of the individual from the deepest levels of his emotional life were not solely a function of increasing urbanization but also were influenced by the expansion of the "machine," developments in transport, and the introduction of artificial lighting. The invention and spread of such terms as timetable, day shift and night shift, and piece-work illustrate this tendency. The working rhythms peculiar to each individual were increasingly disregarded and socially disapproved.

Increasing frustration of manipulative creativity. A feature of the period was the changes in the means and the methods of industry. In 1860 most of the power in industry was produced by human muscles, but by 1930 it was obtained by power-driven machinery. The older handmade article was being replaced by the mass-produced one, and the scope of creative manipulation as a means of emotional expression was becoming more and more limited. Even such satisfaction as was provided by the handling of the machine was denied to many by the epidemics of mass unemployment that were especially severe in the interval between the two world wars. And even more subtly but just as effectively did rationalized restrictions on output (themselves a "neurotic" symptom) operate to frustrate further the worker who still remained in employment. An example of this phenomenon of "man against himself" was the national need for houses on the one hand, and on the other the formation of "rings" by the manufacturers and the imposition of restrictions on bricklaying by the labor unions.

Increasing rapidity of change in the structure of society. This might be described as the "insecurity of the collapsing platform," in that persons knew neither where they stood nor how long they would stand. More technically and concisely it could be described as "the disintegration of society." In 1860 the stratification of social classes was still fairly well defined and generally accepted. People "knew their place" and understood their standing, and they confidently worked, played, and strutted upon their apparently irrevocably allotted stage. In the years that followed, class warfare emerged. The old order was changing and indeed breaking, but a new order of reintegration had not yet emerged. The symptom of mass unemployment not only denied to the individual the emotional release of manipulative activity but also isolated him from society. Scales of relief admittedly provided him with the partial satisfaction of his basic material needs of food, clothing, and shelter, but these satisfactions alone were insufficient for an adult.

The need to be "safe"—whether against the outer threats of occupational loss, failure to be promoted, financial embarrassment, or social disapproval, or against the inner threats arising from frustration of the "life"—came to evoke a style of living regulated by obsessional mechanisms as a defense against ever-growing danger. It was no coincidence but a manifestation of the trend of things that Mr. Baldwin in the early 1930's offered "safety first" as Britain's new motto, nor that in 1939 the repressed emotional life of the community found relief and even satisfaction on the outbreak of war.

Increase in standardization and repression of individual expression. Standardization was furthered by the growing mass production of information, entertainment, clothing, and (more especially) "education." The increasing standardization of "education" in schools and universities was associated with

the octopus growth of the examination system which, concerned mainly with the acquisition of information from books, did not recognize the equally great (and indeed greater) need for educating the emotions—that is, of life-learning and the development of personality and character. (Teaching implies a human relationship—that is, a relationship based primarily on the emotions and only secondarily on the intellect—and as we look back on our own life we come to realize how the few persons who imparted to us either knowledge or wisdom—even in a strictly technical subject—did so not in virtue of their standardized qualifications and diplomas but of their personalities. The imparting and the assimilating of factual information are very necessary but in themselves are inadequate as a substitute for education in living.)

Increasing absence of aim and direction. Life cannot be comprehended solely in terms of forces operating from behind. It is not only a matter of impulsions *a tergo* but also of propulsions toward an object, goal, or end in view. Every physician has noticed how the interposition of a fresh aim in life or of a new viewpoint operates favorably by “giving the patient something to live for” and is an important factor in recovery. An important aim in the lives of many vanished with the decline of active religious faith, and its recession took away a meaning and significance from life. One of the natural ends of marriage, at least for women, is to have babies, but with the changes in the course of things this goal conflicted with the security of the husband or the freedom, narcissism, or respectability of the wife. The aim of work is to create, but whereas the old craftsman saw in visible form the growth of the product of his manipulative activity, the new worker handled only parts and was denied the satisfaction of seeing his endeavors carried through to their completed end. In short, there was a

progressive restriction of emotional vision—not only of sight but also of insight. Only perhaps in wartime, and that under inspiring leadership, did the masses regain some sense of purpose, of direction, and of movement toward a clearly envisaged goal.

The various tendencies described above might be summarized by saying that between the seventies of the nineteenth century and the thirties of the twentieth century there was a progressive increase of "inner insecurity," which (apart from the influences of altered social conditioning of infants) was a response to the progressive increase in the outer insecurity with respect to occupation, income, and status of the individual in the social setting; the emotional tensions thus engendered could not be adequately liberated because of the progressive restriction on the creative activities of making and producing "goods" and because of the increasing neglect of innate biological working rhythms; neither could the tensions be canalized in the form of a drive to a good object or goal either in this life or a future one. There was also a progressive recession of the sphere of the "divine," associated with the increase during the period of secularization of thought—that is, rationalism. This withdrawal of "God" is far from unimportant in its practical psychological and social effects.

This short inventory indicates that the changes in the milieu of adulthood, postulated by epidemiological theory as the second possible reason for the rising incidence of the psychosomatic affections, did take place between 1870 and 1930. Emotionally frustrating influences increased in intensity throughout the period and had the effect of tending to provoke widespread and deep-seated feelings of anxiety, insecurity, helplessness, resentment, and isolation. Of those who

were deeply insecure some fell into a chronic condition of dependency and helplessness, looking to the state to become their mother; but others defended themselves against these inner feelings by excessive self-help and compulsive overindependence. ("I'm never at rest unless I'm restless," as a patient once said to me. He had a gastric ulcer.) Of those who were exasperated, resentful, and hostile, some fell into a chronic condition of whining querulousness, overirritability, hypochondriasis, or agitatorism; others diverted their unexpressed hostility to the strengthening of obsessional tendencies; and still others diverted this energy into a compulsive drive to relentlessly unremitting work directed toward attaining (or maintaining) positions of power and authority. The general ebbing tide of natural emotional expression was attended by the appearance of what one of my friends has called (but not quite appropriately) "the most moral generation that ever was." He recalled how observers who had remembered the "loose licentious soldiery" of the Boer War (1899-1902) saw the beginnings of increasing restraint in the men of the war of 1914-18 and were amazed at the relative orderliness, sobriety, subduedness, and chastity of their sons in the war of 1939-45. This growth of "respectability" may be collated with the psychiatric findings that, whereas in 1914-18 hysteria was common among "other ranks" and anxiety states among officers, in 1939-45 hysteria was less often observed, anxiety states were even more prevalent, and reactive depressions showed a relatively greatly increased incidence.⁵

The growing sense of social insecurity that provoked the need for reassurance was probably responsible for the extraordinary increase in smoking during the period. In 1850 the average con-

⁵ Editorial article (1945), *Brit. Med. Journal* I, p 913.

sumption of tobacco per head each year in Britain was a quarter of a pound but by 1940 it had risen to four pounds per head. This does not necessarily imply that insecurity was exactly sixteen times as great. Another symptom of growing insecurity was the rapidly expanding popularity and consumption of patent medicines, and still another was the spread of magazines devoted to such subjects as vigor, personal health, and personal psychology.

FURTHER EPIDEMIOLOGICAL IMPLICATIONS

The adoption of a psychosomatic viewpoint of interpretation throws light not only on the rising incidence of the psychosomatic affections but also offers a method of increasing our understanding of their statistical features mentioned in Chapter Three. For example.

Age shift. The finding that the age of maximum frequency tended, with the rising incidence, to move toward the younger age groups may be related (at least in part) to the increased piling up of predisposed individuals—an effect resulting from the progressive changes in the conditioning of infants.

Sex shift. The finding that, except in diabetes, the rate of rise was greater in males than in females cannot be directly related with the changes in the milieu of infancy, for these affected the sexes similarly. Psychoanalytic theory suggests, however, the possibility that the male infant, being in a closer and different emotional relationship to the mother, experienced the progressive increase in oral frustration more severely (or at least differently) from the female. But irrespective of whether we reject or accept this suggestion the changes in the milieu of adulthood did indeed, and very clearly, affect the two sexes differently. The alterations in the world of woman saw the emergence of the “new woman” whose “emancipation” although providing her with access to many new interests and

satisfactions was not attended by the simultaneous withdrawal of the social sanctions which allowed her to retain her moods and modes of feminine behavior in virtue of which she still continued to be able to liberate her emotional tensions in many forms and expressions denied to the male.

Diversities of incidence in different social groups. That the incidence of psychosomatic affections was higher in urban than in rural areas may be related, at least in part, to the fact that the rural milieu in infancy does not tend to instigate predisposition to the same extent. Thus the proportion of artificially fed babies was, as already noted, much lower than in the cities, and the young growing life was more directly exposed to the emotional influences of Mother Nature. In adulthood the rural milieu allowed of more individual self-expression; the decline of religious faith was relatively less; intellectualism received little stimulation; and work was more in accordance with diurnal and seasonal rhythms. In short the older mores prevailed to a greater extent than in the cities. A man was entitled to be unlike his fellows. The lower incidence of psychosomatic organic diseases in remote and rural areas may thus be collated with the alleged relative rarity of these diseases in "primitive races," that is, in communities not influenced by "industrialized Western civilization." Admittedly no adequate statistical data exist for "primitive races" but the impression of many observers that the psychosomatic affections among them are either unknown or rare is in conformity with both etiological and epidemiological expectation.

Interpretations of the differences in incidence in various occupational groups and social classes would require special field studies. In a later chapter consideration is given to the high rates of psychosomatic affections that, as already mentioned, prevailed in miners between the two world wars.

Peculiarities of particular incidence rates. An epidemiological interpretation of the incidence rate of each syndrome or disease would require relating the "etiology" of each affection to particular frustrations operating in infancy and particular social stresses operating in adulthood during different periods of historical time and in different social groups. For example, the significantly high rate of deaths from coronary thrombosis which has appeared in doctors during the last twenty years or so—especially in those medical men who have become eminent in their profession—is related not only to their early home background but also to their occupational milieu which requires them to "keep on top" of the demands made on their services as well as on top of the demands of their colleagues that they should appear in the role of "authority." In this sense obsessional trends can be, if not induced, at least reinforced. To modify Shakespeare's words concerning greatness we could say that although it is very doubtful if some are born with obsessional trends, it is definite that many acquire them through parental conditioning; and others have obsessional trends "thrust upon them" by the demands of their particular occupational environment. In present day Britain where there are so many restrictions in spontaneous activity—endless queues to stand in and endless official forms to fill for permission to act or acquire—to survive at all, many individuals are rendered obsessional in their ways of living by the imposition of circumstances.

To conclude, the incidence of many incapacitating disorders and diseases that fall within the sphere of general medicine may be said, like the infectious diseases, to "have an epidemiology," but unlike the infectious diseases their etiology cannot be understood unless the environment is viewed in terms of its psychophysiological effects.

CHAPTER 7

A Declining Birth Rate and Psychological Health

THE PURPOSE of this chapter is to show the value of applying a psychological approach to the problem of the declining birth rate and to suggest that rising trends of infertility and of the psychosomatic affections may be regarded as indices of the declining psychological health of a community.

A PSYCHOLOGICAL APPROACH TO INFERTILITY OF INDIVIDUALS

Behavioral infertility. In the course of examining patients who were married I came to realize the frequency of the practice of birth control—usually by coitus interruptus. Knowledge of the safe period was not common. I also formed the opinion that, at least during this period of historical time—it was in the 1930's—evasion of parenthood was more often the wish of males than of females, an observation that had previously been made by Charles.¹ The evasion, whether in husband or wife, was almost always associated with an underlying neurotic anxiety. The reasons given for the behavior were often of the nature of rationalizations, the inner emotional state of the patient providing him with apparently logical rea-

¹ Charles, E. (1936), *The Menace of Underpopulation*, London.

sons for not begetting children. Such rationalizations resemble those which occur in a person who, having been ordered under hypnosis to perform a certain act in the waking state, carries out the command and on being asked why he acted as he did produces spontaneously an appropriate and apparently logical explanation of his conduct. Curiously enough the rationalizations among the artisan and laboring classes seldom referred to economics or finance. In males the commonest reasons given were that "the wife was not strong enough" or he "did not wish the wife to suffer or run risks," or, if there were already one or two children, that he "wished them to have a better chance in life than he had." It will be noted that these statements provide examples of identification of the male either with the woman or with the children—in other words, the husband was ceasing to be a virile father figure. In women the commonest reasons given were that "my husband does not want any more children" or "the doctor says I am not strong enough." Many of the patients (especially those with psychosomatic organic diseases) showed decided obsessional trends in the sense that they tended to arrange their lives in an excessively ordered way—this, as we have seen, being an attempt to compensate for deep-seated feelings of anxiety, isolation, insecurity, or resentment. The behavioral infertility of these individuals could often be related to their obsessional characteristics in that persons with such rigid character structure tend to experience upsetting events—and these include childbirth and children—as a threat to the routine design for living which had originated as a mode of defense against a dangerous and upsetting universe.

I noted, too, that a large number of men were relatively impotent in the sense that they suffered from *ejaculatio praecox*. Many of the women suffered from relative frigidity as revealed

by their statements that they "were not interested in intercourse."

Psychosomatic sterility. Disturbances of function of the organs of generation are known to occur in certain women in association with deep-seated anxiety. One example is modifications in the menstrual cycle. Another is inhibition of the vulvar secretion normally evoked by sexual excitation. Consideration of individual case histories that include a psychological approach suggests that psychophysiological dysfunction may even affect the ability of certain women to conceive in spite of the presence of active insemination and the absence of organic or mechanical faults. This possibility receives some statistical support from serial investigation of sterile women from a psychiatric angle.² In males, the effect (if any) of the emotions in modifying the vitality of spermatozoa is quite unknown.

Psychosomatic sterility is probably of less importance to the problem of a declining national birth rate than is behavioral infertility which, by limiting directly the occasions of insemination, clearly reduces or removes the chance of impregnation. In any case the nature of both these aspects of declining reproductive capacity can be adequately appreciated only when a psychological approach is included in the range of observation and inference. This suggests that noxious psychological factors of the communal environment may be etiologically relevant to the movement of the birth rate. If this is so we should expect to find certain correspondence between the decline in the birth rate and the rise in the incidence of the psychosomatic affections.

² Wittkower, E. and Wilson, A. T. M. (1940), *Brit. Med. Journal* II, p. 586.

EPIDEMIOLOGICAL CORRESPONDENCES BETWEEN
THE FALLING BIRTH RATE AND THE RISING
RATE OF PSYCHOSOMATIC AFFECTIONS

Sex. The sex shift that occurred in the incidence of certain psychosomatic affections between the nineteenth and twentieth centuries (*see* p. 65) suggested that during this period a progressive tendency toward neutralization of sexual distinction with respect to psychological characteristics was taking place in response to changes in the social environment. If in fact men were ceasing to become father figures and women mother figures such a happening could not but profoundly affect the birth rate.

Age. The rising incidence of the affections was associated with a "shift" of the age of onset toward the younger age groups. Correspondingly the rising national infertility (revealed in the decline of large families) increasingly affected the oncoming younger generations.

Social groups. Diversity of incidence in social groups is found not only in the psychosomatic affections but also in the birth rate. Their respective social variations show, moreover, certain correspondences. Thus the incidence of psychosomatic affections is greater in urban than in rural areas—and so is the level of infertility as revealed in a lower birth rate. Additional correspondences are found with respect to other social groups (e.g. occupational) and those will be mentioned later.

THE TIME OF ORIGIN OF THE FALL IN THE BIRTH RATE AND THE RISE IN THE PSYCHOSOMATIC AFFECTIONS

It is difficult to assess the time of origin of the rising incidence of psychosomatic affections in Britain because, during the nineteenth century, statistics of morbidity were not in existence and the official death rates for such diseases as duodenal ulcer, diabetes, exophthalmic goiter, and the hypertensive cardiovascular disorders are either not available or are impossible to interpret. Not till the twentieth century did the rise in the rate of the psychosomatic affections become definitely discernible in official mortality statistics and not until after World War I did certain of them (e.g. duodenal ulcer and the bodily disturbances associated with anxiety states) assume almost epidemic form.

In contrast the time of origin of the downward trend in the birth rate is definite. During the first two-thirds of the nineteenth century the birth rate had maintained a high level, but at about 1870 it began to undergo a decline which since then has been progressive. From the psychosomatic standpoint this suggests the possibility that the years around 1870 represented a crucial period during which the operative effect of an increasingly harmful psychosocial pressure began to be revealed. That the period around 1870 does refer to a critical point in social history is the opinion of Trevelyan: *

One of the difficulties of an attempt to write the social as distinct from the political history of the nation is the absence of determining events and positive dates by which the course of things can be charted. The social customs of men and women and their economic

* Trevelyan, G. M. (1944), *A Social History of England*.

circumstances, particularly in modern times, are always in movement, but they never change completely or all at once. The old overlaps the new so much that it is often a question whether to ascribe some tendency in thought or practice to one generation or the next. But on the whole the most marked changes of tendency in Victorian England may be ascribed to the later sixties and seventies.

Yet even before 1870, intuitive observers of the times had noted the deeper and darker aspects of the expanding phases of the industrial revolution. As early as 1832 Carlyle had proclaimed: "The new man is in a new time under new conditions"—a pregnant saying without meaning to the utilitarians of his day and whose significance even now is not sufficiently comprehended. And in 1866 Matthew Arnold wistfully wrote: "Your creeds are dead, your rites are dead, your social order too." We may conjecture, therefore, that the industrial revolution had been in operation for at least a century before its liberating psychological effects (as revealed in a high or growing birth rate) were overtaken by its antithetic restricting psychological effects whose influence did not show their ascendancy until the last third of the nineteenth century.

If we accept the suggestion that the communal environment considered psychologically became increasingly frustrating from about 1870 onward we should expect that the generation born at that time and who married about 1900 would be mildly anxious and have fewer offspring than their parents. The children who were born about 1900 grew up through war, strikes, financial crises, and unemployment and we should expect that they would respond by still further anxiety so that when they in turn married (about 1930) they would produce still fewer children for the third generation and those that did arrive would be hyperanxious. This supposition may be re-

lated to the following actual numerical facts. Taking the fertility rate (England and Wales) of 1870 as representing 100 per cent, by 1900 it had fallen by 25 per cent and by 1930 by almost 60 per cent. These ideas are illustrated in the following table in which the letters P and C refer to parent and child and the plus sign to the degree of morbid anxiety.

Degree of Anxiety				Fertility Rate (%)			
1870	P	C	+	...	...	...	100
1900	P	C	++	...	...	...	75
1930	P	C	+++	...	...	...	41
1960	P	C	?	...	...	...	?

On this "hypothesis of increasing parental anxiety" the prevalence of early acquired predisposition to psychophysiological dysfunctions would begin to increase around 1870; by about 1900 it would be moderate, but by 1930 considerable. Contemporaneously the actual increase of harmful communal events—so marked between the two world wars—would in turn increasingly precipitate psychosomatic illness in the growing number of persons who by this period had developed an early acquired predisposition to them. Such a hypothesis is in alignment with the actual high rates of incidence in the early 1930's. Employing it for prognostic purposes for the years consequent upon World War II, the level of incidence of psychosomatic affections in Britain will depend on how far the already realized increased extent of early acquired predisposition deriving from the increased parental anxiety of prewar years becomes precipitated in clinical form by harmful psychological communal pressure.

Certain writers regard the phenomenon of the falling birth rate as a manifestation of a "voluntary decision on the part of individuals." From a biological standpoint, however, it is

an expression of group reaction to the total situation especially in its psychological aspects, and from this point of view it is no more "voluntary" than an increase in the incidence of duodenal ulcer or coronary occlusion. In a final analysis it would be seen to represent a predictable biological happening in response to the totality of circumstance.

THE BIRTH RATE AND THE PSYCHOSOMATIC AFFECTION RATE AS INDICES OF PSYCHOLOGICAL HEALTH

Until recently it was customary to regard public health in terms of physical health alone. Thus before the war it was generally stated, and accepted, that the public health of Britain was improving in response to the lessening of various *physical* social evils: improper feeding, impure water and food, poor housing, inadequate exercise, improper clothing. The indices used to support this proposition were the improvements in the vital statistics of those events known to have a primary etiological relationship to the communal environment considered physically. Measurements adopted as a yardstick of the public health included, accordingly, death rates, infant-mortality rates, the expectation of life, tuberculosis and infectious disease rates, the height and weight of schoolchildren, and so on. But the public health is Janus-faced, and at a time when its physical side was brightening the psychological side was seen to be darkening by those who cared to look at it. The decline in psychological health was revealed by a different series of indices whose trend took a direction not toward improvement but toward deterioration. They comprised the national infertility (as revealed in the declining birth rate) and the rising rate of psychosomatic affections (reflected also in the increas-

ing rates of incapacity for work and of chronic sickness) and also perhaps by a rising suicide rate.⁴ The increase in the frequency of these occurrences could be broadly understood as manifestations of a progressive frustration of the individual in response to an increasing noxious pressure being exerted by the communal environment regarded psychologically—growing mechanization, growing timetable régimes, increasing urbanization, the break-up of local communities, mass unemployment, the loss of an end in view, and so on—as described in Chapter Six.

The notion of the physical and psychological (or social) health of a community may be represented diagrammatically as is shown in Figure 3.

This provides a schematic representation of the general trends of health in Britain (1900–39) from the physical and from the psychological viewpoints and shows how each reveals a different aspect of the state of the public health. Both viewpoints are clearly necessary if the picture is not to be

⁴Strictly speaking suicide is not a disease but a symptom that may occur in a number of diseases of differing etiology—as in various psychoses. It may even occur in apparently healthy people in response to their meeting or envisaging a life situation in which all their accustomed social ties and aspirations are experienced as irrevocably destroyed. Its prevalence may also be a function of fashion and tradition. As its etiology is multiplex, any interpretation of the variations of death rates attributable to suicide is therefore peculiarly difficult. But because it is etiologically related to the “emotions,” variations in its death rates must be related in some way to the pressure of the environment considered psychologically.

It is generally supposed that deaths from suicide increased in Britain during the nineteenth century. A recent statistical research by McKinlay shows that, as far as Scotland was concerned, an analysis of the figures from 1860 onward does not support this supposition. There was, however, a very definite increase of suicide after World War I, and this reached a high level about 1935, after which a decline set in in males, though not in females. Between the nineteenth and twentieth centuries there was also evidence of a sex shift in that suicide, although still predominating in males, became relatively more frequent in females. Thus the sex proportion was three males to one female before the outbreak of World War I, whereas it had fallen to two males to one female before the outbreak of World War II.

INDICES OF COMMUNAL PHYSICAL HEALTH

General death rate
 Infant mortality rate
 Proportion of stunted children
 Tuberculosis rate
 Typhoid fever rate
 Rheumatic fever rate
 Rickets incidence
 .

INDICES OF COMMUNAL PSYCHOLOGICAL OR SOCIAL HEALTH

Infertility rate
 Suicide rate
 Nonarthritic "rheumatism" rate
 Gastritis and peptic ulcer rate
 Exophthalmic goiter rate
 Diabetes rate
 Cardiovascular hypertensive disorders rates

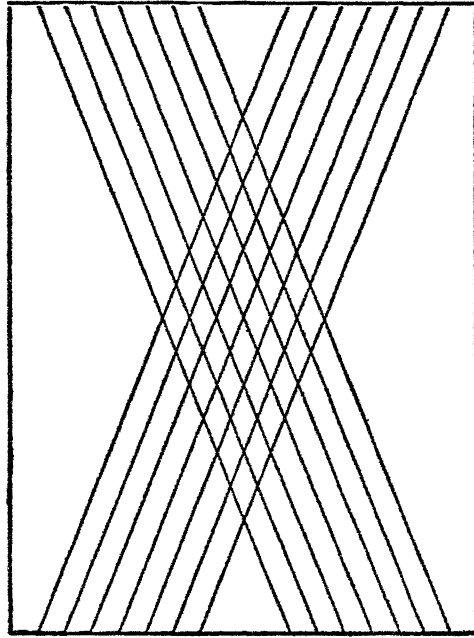


Figure 3, Providing Schematic Representations of the Idea of Physical and Psychological Health (Based on the Trends of Health in Britain 1900-39)

The items regarded as indices of "physical health" refer to diseases and morbid happenings which etiologically are primarily related to environment in its physical, chemical, and microorganic aspects. The items regarded as indices of "psychological or social health" refer to diseases and morbid happenings which etiologically are primarily related to environment in its psychological aspects. For the purpose of this diagram the declining birth rate has been regarded as an increasing infertility rate. The differential rates of increase or decrease are not shown, since the aim of the diagram is to illustrate, in a broad way, the notions of physical and social health. In this respect the statistician may regard the figure as "misleading," but the student is more likely to regard it as illuminating.

The diagram shows how, during the present century, the trend of physical health steadily improved, whereas the trend of social health took an opposite direction. The rates of frequency of infertility, of suicide, and of the psychosomatic affections represent the medical indices only of a morbid communal process which may be suitably referred to as "social disintegration." There are other indices of social disintegration in terms of other interests, e.g. industrial, religious, cultural, etc.

a partial or misleading one. The figure enables us to appreciate at a glance how at a time when the indices of physical health were improving, those of psychological health were deteriorating. It should not, however, be taken over literally. The year to year variations of the different indices of psychological health did not, in fact, run parallel—nor did those of the individual indices of physical health. Indeed we should scarcely expect that they would do so in virtue of the complex and differing etiology of each disease or happening they represent. The aim of the diagram is simply to depict a useful conception in outline, rather than to indicate the detailed results of its application.

CHAPTER 8

Psychosocial Medicine

IF THE major advance in preventive medicine during the last century was determined by the growing appreciation of the etiological significance of environment in its physical aspects, during the present century it will be determined by the growing understanding of the causal importance of environment in its psychological aspects. As "psychological environment" may be largely equated with the other persons (their personalities, attitudes, beliefs, customs, and arrangements for doing things) encountered by the individual it is sometimes referred to as social environment or "society." By employing the psychosomatic approach we have seen how changes in society can be related to changes in the incidence of many common incapacitating recurrent and chronic disorders. Thus the changes in the social environment of Britain between 1870 and 1930, being progressively frustrating to emotional development, increasingly both predisposed to and precipitated psychosomatic affections, so that at a time when the indices of the country's physical health were improving, the working population was showing an ever greater "incapacity for work"—an occurrence that presented the hygienist with a seeming paradox. We saw, too, that those social changes can be related not only to alterations in physiological functioning but also to alterations in biological behavior, inasmuch as they were attended by ever greater "incapacity for reproduction." We accordingly con-

cluded that the rates of fertility and of the psychosomatic affections seemed to represent indices that had a reference to the psychological or social health of a community, and that when the trend of fertility was downward and the trend of psychosomatic affections was upward—each of these respective movements being reflections of a deterioration of vital productivity and creativity—we could infer a decline in its psychological or social health. This conclusion raises many questions which cannot be answered by the methods we have hitherto employed, and we have therefore reached a stage where we have to supplement them by a social approach, or more properly an approach in terms of *psychosocial medicine* and *sociodynamics*.

An introduction to this further way of looking at things is best made by asking ourselves more exactly what we mean when we speak of a society (from which is derived the much overworked adjective *social*). Otherwise we shall not really appreciate what it is that becomes unhealthy; how this happens (i.e., what is its social pathology); and why it happens (i.e., what is its social etiology).

SOCIETY AND ITS PATHOLOGY

A preliminary definition of a society—of a group viewed psychologically—might begin with the statement that the word refers to the idea of *a group of individuals related by common psychological bonds, or emotional interests, by virtue of which they are enabled to live or work together*. Here, however, we must interrupt to ask: What is the nature of the psychological bonds by means of which the members of a group are socially related?

According to ontogenetic theory the so-called social bonds are derivatives of the interpersonal bonds that begin to appear

in the third phase of infancy, when the double-stranded drive to be actively noticed and approved as a person and to take possession of or give love to another person provides the basis for the formation of affectionate personal relations. The early social drives begin, therefore, in the course of the days when the child emerging as a "young person" first stands on the fringe of the play group before "crossing the boundary," joining in, and being accepted—a step which marks the beginning of the phase of social preparation. The "passive" drive to be received and accepted as a member of a group requires for its fulfillment a reciprocal active tendency from the group directed toward the individual; and the "active" drive to give affection and assistance requires for its fulfillment a reciprocal passive tendency from the group toward the individual. If these conditions are present the child on the fringe is "attracted" to the group, and once he has become a member of it he achieves "social security," that is, he experiences a sense of social support which enables him freely to give and take, and thereby to be both at home with the group and at home with himself. These primary social drives are, however, frustrated if no play group is available (as may happen if the child lives in a middle-class residential area) or—and this comes to the same thing—if the parent forbids the child to enter a play group that is available (as may happen if the mother thinks the other children are too rough, too dirty or not nice) or if the play group is too rigidly organized (as in certain nursery schools or youth organizations). In the presence of such barriers to his social drives the child is necessarily thrown back on himself—a situation which may induce an overgrowth of the tendencies of the third phase, such as a too-intensive fantasy life or a too-intensive or too-exclusive personal relationship. (If the latter involves a parent he or she may become exas-

perated and this reacts still more adversely upon the child.) But the ability of the young person to achieve satisfaction of his early social needs depends, however, not only on the availability of the play group. It depends, also upon his earlier experiences within the family circle. (Many writers refer to the family as the primary social group or as the prototype of society.) Thus if the earlier infantile drives have been unduly frustrated, the unfolding stages of the primary social phase (as well as the succeeding phases) may be rendered more difficult in that the child at this period may be overanxious and "nervous" (with symptoms such as tiredness, listlessness, lack of mobile energy, daydreaming, oversensitiveness, etc.); or he may have erected defenses which involve avoidance or restriction of social contacts; or, if such defenses have not been realized, he may be unable to restrain his pent-up destructive hostility from alighting on the group as an object, that is, he engages in "antisocial" behavior.

In the course of the "phase of social preparation" (for definition *see* page 238) the individual passes through not only the primary play circle but also the early residential milieu (which, save in the case of small, self-contained villages, can scarcely be regarded as a social group proper), the religious circle, the school circle, and so on; and he becomes socially affected by them and achieves more or less satisfactory relations with them.

During the ensuing phases of puberty and adolescence he encounters or traverses other and more specialized groups (recreational, educational, religious) and also becomes a member of an occupational group. His meeting with these groups coincides in time with the period of development of the sex drives, whose unmistakable emergence necessitates a considerable reorientation in social relations not least in relation to

the original family circle. The crude expression of the sex drives is frustrated by the sanctions imposed by adult society. (The "adult society" which frustrates is not only outside but also inside in the form of the earlier parental, educational, and religious influences that have molded the innate but plastic "moral sense.") The inner tensions of this "unbearable age" are therefore considerable and are usually attended by a reactivation of the early response to frustration such as undue anxiety ("nervousness" and "debility"); or an exaggeration of obsessional defenses; or a re-emergence of destructive tendencies. There is also a need to seek the safety of being regulated, this time, however, not by the parents but by "society." In primitive peoples regulation of the phase of social graduation may take the form of trials, tests of endurance, and rites of initiation. In modern communities it is represented by such institutions as schools, colleges, or universities, apprenticeships and work groups. In each of them special codes and systems of behavior spontaneously arise from among the members and these form the tradition, supply the mores, and provide the discipline of what is "done" and "not done." (The spontaneous appearance of specialized codes of behavior may be related to certain of the primitive tribal aspects of the preceding phase of social preparation.) Frustration of the adolescent's need for social regulation may exaggerate still further the difficulties of the period. In large cities where institutions for the social requirements of adolescents are not available, the resulting social starvation may precipitate the formation of gangs. These represent the crystallized expression of the social frustrations experienced by their members throughout the series of social circles, beginning with the family circle, traversed in their ontogenesis.

The foregoing considerations might be formulated by say-

ing that every phase of ontogenesis requires its appropriate social circle or circles. If the requisite social circles are inappropriate or not available the individual responds by disturbances of emotional development which are manifested in his behavior, in his psychophysiological functioning, and in his social relations. From this point of view "cases" of a psychosomatic affection and "cases" of delinquency together appear as functions of the disturbances of one or more of the social circles through which the patients have lived and are living. They are the insignia of the patients' social memberships, past and present.¹

We may now continue the definition of society: *The common psychological bonds between its members provide the group with the coherence necessary to enable it to function socially and thus produce its particular variety of "social goods."* Here we must again stop to ask: What is meant by social functions and social goods?

It is convenient to think of many social groups as being contained within the boundary of a larger group whose prototype is the tribal or village community and the present-day representative is the modern national community. (I have used the word "community" to refer especially to a society which has a readily definable geographical location. In this sense the word connotes a "containing community" i.e., one that contains a variety of social groups: domestic, occupational, professional, religious, etc.) Each contained group may be regarded "ideally" as having its particular function or social purpose which is related to the welfare of all the members of the

¹ From this psychosocial point of view, the core of a patient's problem is seen not as anxiety but as isolation. From the therapeutic angle he must overcome this by development of personal relationships with the psychiatrist, and then, via this personal phase, be introduced to a healthy social group where he may live through his phases of social preparation and graduation.

containing community and takes the form of providing its particular brand of "social goods" for redistribution for the common weal. In the case of the family an important social function is the production and rearing of children; in the case of the play group it is the production of candidates for the "phase of social graduation"; in the case of the occupational group it is the production of "goods" to satisfy basic material needs and cultural ends. A group or community whose members in virtue of the coherence of their common psychological bonds are enabled to work as *one* may be described as functionally integrated.

A functionally integrated group is not only productive but also attractive in that it draws new members to it. Thus an integrated play group is a magnet for surrounding children, and an integrated productive occupational group attracts new adherents. (One might even say that an integrated family group attracts new lives—a statement which, though seemingly fantastic, is of operational value.)

To complete the preliminary definition of a society: *A group which is able to produce and also to reproduce (i.e., maintain or increase its social goods) is attractive and integrated (i.e., is socially healthy); and its members reflect its social health by being emotionally integrated (i.e., psychologically healthy). If, however, the psychological bonds of a community become weakened (whether as a result of "causes" from without or within) the group loses its coherence, becomes repellent, suffers dispersal, and ceases to be able to fulfill its particular social function; that is, it no longer produces "social goods" but "social evils." Such a group may be described as disintegrated (i.e., socially unhealthy) or as a sick community or sick society, and its members reflect its social ill-health by being emotionally disintegrated (i.e., psychologically unhealthy).*

ONTOGENETIC THEORY AND THE "PSYCHOSOCIAL DISORDERS"

In the course of the foregoing discussion of the "structure" of society in terms of its functions, mention was made of several symptoms of social sickness other than psychosomatic affections and infertility. These included debility, poor output, and delinquency. It is convenient to subsume all the morbid responses whose frequency rates can be used as indices of social ill-health by the term the "psychosocial disorders." According to this classification the "psychosomatic affections" would form a subgroup of this more comprehensive category.

From the standpoint of ontogenetic theory the psychosocial disorders—the manifestations of the disintegration of a society—may be regarded as the homologues of the manifestations of the disintegration of the family group. Thus poor output, lack of initiative, boredom, and apathy in socially frustrated adults are but a revival of the listlessness, tiredness, and lack of interest of the "nervous child" whose vital interests have been frustrated and who therefore feels there is nothing to do. Delinquency and revolt (including that form of verbal revolt known as agitatorism) represent the recall of early destructive hostility against parents or siblings. And the psychosomatic organic affections (so typically associated with obsessional personality trends) represent the precipitation in clinical form of those morbid psychophysiological dysfunctions of infancy that are induced by frustration of early emotional development. Even the inability of the adults of a sick society to reproduce their species might be equated with the inability of the frustrated child to identify itself with emotionally mature father and mother figures.

This homology of the psychosocial disorders with the effects of early frustration of the "life" is indicated aphoristically in such remarks as: The "inner society" of the individual is a reflection of his outer society; The symptoms of the problem group are the symptoms of the problem child; and, with special reference to the psychosomatic affections: Failure of the integration of the social group is attended by failure of integration of the "psycho-neuro-endocrine system" of its members. Although the psychosocial disorders appear as unrelated, that is, they are phenotypically different, yet they are basically related, that is, they are genotypically similar.

ETIOLOGY AND SOCIAL SICKNESS

What is the etiology of social ill-health? What "causes" the psychological bonds of a society to weaken so that the functional equilibrium is so seriously upset that the group becomes disintegrated? To appreciate this we must return to the consideration that each social group has its particular function which is to provide its particular brand of "social goods." To fulfill its special purpose each group evolves its own particular way of doing things. The nature of the arrangements for doing things may be thought of in terms of patterns of psychological bonding. Social groups with different functions have, therefore, different *social patterns*. Similarly, different containing communities have different total social patterns or *social systems*. Considerable variations in the social system and its patterns are compatible with the existence, maintenance, and survival of a community. Thus the system and patterns of primitive peoples are very different from those of the modern nation which in turn provides a system and pattern very different from those prevailing at earlier stages of its history. Since

the purpose of the social group is to provide its particular brand of social goods for the welfare of all the members contained in the greater community, there is, therefore, an interdependence, or functional relationship, between all the patterns involved in any one system. When, therefore, one pattern undergoes change the others must change in accordance with it (thereby changing the social system also), otherwise the functional equilibrium of a community cannot be maintained. The "causes" of the weakening of those "psychological bonds that enable the members of a community to live and work together" are therefore to be sought in the "causes" that disintegrate social patterns in such a manner and to such a degree that the social equilibrium of the community cannot be restored. *Social disequilibrium* is therefore to be regarded as the first stage of functional breakdown, and if the community cannot adapt and equilibrium cannot be restored, the succeeding stage is the further weakening of psychological bonds known as *social disintegration*.

Social disequilibrium tending toward disintegration may be the result of "causes from without or within." Examples of the social sickness in which "causes from without" were of high etiological relevance are seen in those cases of social disintegration in primitive peoples arising from their encounter with colonists, traders, missionaries, and industrialists invading from an utterly different social system. This encounter had the effect of rapidly disrupting the social patterns of those peoples without furnishing the means for providing a social system whether in a modified or an entirely new form. Classical descriptions of these sick communities have been provided by anthropologists in relation to the Red Indians of North America, the islanders of the South Pacific, and the tribes of

Africa. In all those accounts emphasis is given to the appearance among their inhabitants of a high incidence of psychosocial disorders, such as lack of energy, apathy, boredom; dissipation, delinquency, or rioting; and decline of population to such a degree that the genetic stock of the affected communities tended to become extinct—as happened with the aborigines of Australia and the Red Indians of the North American continent. The descriptions of those sick societies do not—indeed they could not, considering the difficulty of securing such information—make any reference to the incidence of psychosomatic organic affections. The valuable survey by Donnison of the data for Africa and Asia relating to the incidence of psychosomatic affections shows, however, that such diseases as peptic ulcer, hypertension, exophthalmic goiter, and diabetes were either absent or had an extremely low incidence in primitive races but that they began to appear in those communities as their social arrangements became disrupted by the introduction of “Western industrialism.”

As an example of social disintegration in which “causes from within” were of high etiological relevance the case of modern Britain might be cited, although in this instance causes from without were also obviously operating. The increasing development and application of science to the physical environment led in time to the industrial revolution of the eighteenth century and to the introduction of many new ideas and inventions, and these in turn inevitably brought about changes in the pre-existing family patterns, religious patterns, cultural patterns, occupational patterns, and economic patterns, so that the total social system became changed at an ever accelerating rate, until a point was reached (perhaps about

1870) when the national equilibrium was so seriously upset that disintegration set in.

These examples suggest that a sudden or very intensive disturbance of the social equilibrium of a community whether "caused from without or within" may lead to disastrous biological consequences whose deep-seated effects may not be immediately recognized.

The nature of the "methodology" required for investigating the etiology of social sickness now becomes clearer. Once a social group has been diagnosed from its indices to be a case of social sickness, the questions to be asked regarding its "etiology of onset" would be:

What kind of social group is this, that is, what group characteristics are relevant and causal? (Relevant characteristics would include its social pattern, the previous state of social health, the "causes from within," the nature of its leadership in its functional aspects, etc.)

Why did the community become sick when it did, that is, what are the causal environmental factors? (Relevant factors are the pressures exerted by out-groups.)

Why did the community take ill in the manner it did? (This requires an understanding of the social pathology, that is, the nature of the "mechanisms" involved in the disturbance of the "functional structure" of the society.)

Nor should the question of the "etiology of natural recovery" be overlooked: *Why and how does a socially sick group begin to recover when it does?*

If answers to these questions could be obtained they would provide guidance for action—for *social therapeutics*—whose aim would be to alter etiologically relevant group characteristics and etiologically relevant factors so that reintegration could be secured and a sick society restored to health.

EPIDEMIOLOGY AND THE PSYCHOSOCIAL
DISORDERS

To explain the appearance of the symptoms of an infectious disease in an individual the physician is compelled to take account not only of a specific microorganic environmental factor but also of the reciprocal and equally relevant characteristic of immunity. Similarly, to explain the appearance of an epidemic of "cases" in a population the epidemiologist must take account not only of the presence of the specific etiological factor in the population but also of the group characteristic of "herd-immunity." If the specific factor is in contact with the group and the "level" of the herd-immunity is high, an epidemic does not occur; but if it is low an epidemic readily occurs. The importance of the level of herd-immunity as a determinant of epidemics is well exemplified in many endemic airborne diseases not yet subject to artificial control, such as measles. In all great urban populations sporadic cases of measles, keep appearing throughout the year. But approximately every two years an epidemic occurs which is "caused" by the level of herd-immunity continuously falling during the interepidemic period, until it reaches a low critical point. Then an epidemic appears and cases keep on increasing until the level of the herd-immunity rises, to reach a high critical point after which the outbreak begins to decline. (This occurs long before every child with no previous history of measles "takes" it.) And now we come to a point of immediate practical interest. In the course of the epidemic the disease seems to spread from one case to another, that is, a patient with measles appears to infect other individuals. But toward the decline of the epidemic and during the interepidemic period

the sporadic cases that keep occurring in time and place do not appear to infect others, and "contacts," although getting the virus, refuse to "take" the disease.

Although the periodicity of the psychosocial disorders presents a different set of problems from that of the infectious diseases, certain features of their epidemiological behavior become understandable in terms of the concept of herd-immunity. Psychosocial disorders are endemic in most communities, the cases being sporadic; but so long as the society remains healthy, that is, has a high level of *group immunity*, other members of the group refuse to take the affection. If, however, the social group becomes unhealthy, that is, if the level of its group immunity falls, cases of psychosocial disorders appear to spread as if by infection from one case to another. For example, sporadic cases of delinquency may occur among the scholars of a socially healthy school (i.e., delinquency is endemic), but they do not infect others and delinquency does not appear to spread from case to case. But if the school group becomes socially sick, cases of delinquency appear to "cause" other cases as if by infection. Again, behavioral infertility is endemic in all communities but, provided the community is socially healthy, one case does not "cause" another; whereas if the social group is unhealthy behavioral infertility spreads rapidly so that Mr. and Mrs. A not only "get it" but also "take it" from Mr. and Mrs. B—and so on. Similarly with the psychosomatic affections. There is no reason to believe that these are new diseases; rather they seem to have been endemic in all communities, but cases are sporadic and the affected member does not seem to infect others. If, however, the group falls sick, cases rapidly give rise to other cases as if by infection; and if the group is a large community the finding of a "positive family history" increases in frequency.

A practical corollary of these considerations is that when cases of psychosocial disorders begin to spread in a group as if from case to case or member to member infection, this is a signal that the group is becoming socially unhealthy.

. FURTHER SOCIODYNAMIC CONSIDERATIONS

MORALE

The word "morale" by use and wont has come to refer to the state of the social health of a group under a special condition, namely the presence of hardship or danger—especially physical danger. "Poor morale" or "good morale" are terms apposite, therefore, to such social groups as a ship's company, a regiment, a band of miners, or a population under bombing. That the coinage of a special word was found necessary in this connection is understandable, for danger is well known to be ambivalent in its social effects. Under certain conditions, such as previously good social health, or the emergence of a "brave" leader, it may be a factor that strengthens psychological bonds, thereby increasing social coherence and enhancing the sense of common purpose. In such circumstances morale is said to be "good" or "high." Under other conditions, for example when the group is already in poor social health or is unable to throw up a brave leader, danger is a factor that weakens psychological bonds, diminishes the sense of common purpose, and tends to precipitate dispersal or breakup of the group. In such circumstances morale is said to be "poor" or "low."

When the social functions of a group necessarily involve the "element of danger" so that good morale becomes specially desirable as an attribute, two important considerations re-

quire attention. The first relates to the need for maintaining a high level of group immunity, and the second to the need for appropriate leadership.

MORALE AND GROUP IMMUNITY

If a high level of group immunity is to be maintained it is necessary to refuse membership to persons specially predisposed to or suffering from serious psychological ill-health, notably in such forms as neurosis, the psychosomatic affections, and "diseased" personalities. Otherwise when the group is exposed to danger—and danger is always a threat to social coherence—these persons develop illness or absenteeism or poor output or delinquency. These occurrences lower the group immunity and tend to depress its level to the point where the psychosocial disorders spread as if by infection from case to case—an indication that social sickness has become severe.

The spread of hysterical illness "by infection" has often been described with respect to army groups whose morale had become poor. Examples of such hysterical manifestations have included outbreaks of night blindness, deafness, mutism, and various abnormalities of behavior. But outbreaks of the psychosocial disorders which include anxiety states and psychosomatic affections, including the psychosomatic organic diseases, as well as hysteria, may occur in any group—familial, occupational, or national—which is socially unhealthy.

Loss of self-respect indices. In certain groups (i.e., army units) poor social health may be recognized by high rates of such infestations as pediculosis and scabies as well as of venereal disease and accident. Many variable factors are involved, however, in the occurrence of these diseases, and it is only within certain limits that their rates can be used as indices

of social health. At the time of mass unemployment during the early 1930's I used to notice that failure to shave was one of the first signs of loss of self-respect in working men who fell out of work.

The practical conclusion is that if high morale is to be maintained it is very necessary to eliminate the sources of spread of poor morale.

SOCIAL FRAGMENTATION

A socially healthy group tends naturally to extrude its psychologically unhealthy members, as is shown by observing play groups of schoolchildren. The group "knows" or "senses" the individual, whether child or adult, who is a problem. A socially unhealthy group ceases, however, to extrude its problem members and they remain not only to act as sources of spread but also as foci of *social fragmentation*, that is, the splitting up of a society into smaller groups which proceed to attack one another, as in class war, workers against management, and so on. A socially unhealthy group loses, therefore, not only its sense of the problem member but also its sense of social purpose.

NATURAL LEADERSHIP

When we think of leadership in terms of social functioning, we have to ask ourselves: Leadership for what? In the case of the healthy society the answer is clear: Leadership for the particular social purposes of the group, that is, for the provision of its particular brand of social goods for the common weal. Under natural conditions a group intuitively cognizes its natural leaders and chooses them from among themselves because it "senses" them to be in alignment with its social purposes. A leader who enables a society to maintain its socially

constructive activities is experienced by the group as "good."

In the case of a sick society the position is different, for the socially unhealthy group loses the sense of its original social purpose. Its emotional energies (which are also its social energies) are therefore no longer out-turned toward constructive ends but in-turned against itself, thereby becoming destructive and disruptive, as is manifested in group dispersal and social fragmentation. The fragmented subgroups, now at *cross* purposes with one another, naturally choose as leaders individuals suitable to fulfill their particular tendencies whether destructive or conservative. In such circumstances the subgroups with tendencies toward destruction select as leaders persons who are agitators, new-gospelers, rebels, propagandists for the principle of least production, for it feels them as "good" leaders; but by opposing groups they are felt as "bad" or "antisocial." As a result of the operation of all these forces further serious social disequilibrium occurs. If, however, a new subgroup appears with a sense of social purpose that is neither destructive nor conservative but reconstructive, it may act as a focus for the spread of reintegration. Should this happen the group now "naturally" chooses leaders that are in alignment with its new purpose.

A practical corollary of these considerations is that when a group which previously chose leaders for construction begins to choose leaders for destruction, this is a sign that the group is suffering from serious disequilibrium both with respect to itself and to the containing society; whereas if the opposite occurs this is a sign that the phase of severe disequilibrium is passing.

To sum up, fluctuations in the state of social equilibrium are attended by fluctuations in the sense of social purpose which in turn is attended by fluctuations in the "kind" of leader

naturally cognized and chosen by the group. It follows that the attributes of leadership are not absolute but are relative to the prevailing purposes of the group.

LEADERSHIP AND MORALE

We are now in a position to abstract some of the qualities of leadership appropriate to the maintenance of morale. These include: (1) Appreciation of the social purpose of the group and belief in its worth-whileness. (2) Adaptability of personality (i.e., thinking, feeling, and acting in terms of lives in society), as opposed to the rigidity of the obsessional personality. (3) Ability to endure hostility from others, especially at times of stress, hardship, or danger. (4) Knowledge—it may be intuitive—of the symptoms of social sickness and the nature of its causes; and the willingness to investigate these and take action in terms of the findings.

DISCIPLINE

Discipline refers to the codes and systems of behavior devised “naturally” by the socially healthy group to assist in the coherence necessary for the performance of its social functions. It also refers to the conscious formulation of these codes in the shape of rules, regulations, and laws whose infringement is attended by specific pains and penalties. As already noted, the need for regulation is innate and is a feature of group life. A socially healthy group maintains its own discipline and only when it falls sick does discipline become broken or even “lost.”

The adjudgment of breaches of discipline and the imposition of penalties are vested by the group in its leaders. If the discipline of a group is breaking and its leaders fail to understand that it is also socially sick and attempt to mend or restore discipline by means of “tightening up,” the only effect is to in-

crease the social disintegration still further. In this connection it is useful to quote the words of Rees ² in his description of what happens to a Service unit in such circumstances:

A unit, through poor welfare and failure in the quality of its officers and noncommissioned officers [may develop] much discontent and crime. [Its leaders] may decide to tighten up discipline as a countermeasure, failing to see the real cause. What happens then is simply that the number of courts-martial and other disciplinary procedures increases rapidly, and while in the long run the unit may be cowed into a "disciplined state," its morale and its value as a fighting unit will be destroyed. An increase in disciplinary measures cannot be an alternative to the development of good morale. Equally in civil life, threats, prosecutions, and penalties do little to check absenteeism and strikes.

We may conclude that when a group is failing to produce its particular brand of social goods—especially when this is in high demand by the containing community—the imposition of increased discipline as a sole means of counteracting the tendency can serve only to bring about further deterioration of its social health. But we may conclude, too, that no group can be socially healthy without discipline.

WAR

The socially destructive tendencies released during social disintegration may be diverted by the sick community toward an "out-group," that is, another community, in the form of war. When this happens there is some alleviation of the disruptive forces within, and a new social purpose develops in the shape of "winning the war." This purpose requires corresponding changes in the social arrangements—perhaps in leadership also—but once this purpose is achieved the destruc-

² Rees, J. R. (1945), *The Shaping of Psychiatry by War*, Norton.

tive tendencies, released from an outer object, again seek inner objects unless new social patterns become available that will enable reintegration to replace disintegration. Failing this the symptoms of social disintegration return with increasing intensity in the form of a recontinuation of the upward trend of the incidence of psychosocial disorders.

THE SICK POPULATION AND THE SICK COMMUNITY

If the nature and the significance of social sickness are not to be misunderstood it is necessary to emphasize the distinction between a group viewed physically and a group viewed psychologically. In its physical aspects a group appears as a population with material needs such as food, shelter, clothing, and nursing care, to which may be added the needs for securing freedom from poisons, infectious diseases, and the ravages of war. In its psychological aspects a group is seen as a society with psychological or social needs, the nature of which may be expressed as the availability of and the integration of the social circles appropriate to the various phases of the ontogenetic development of its members. If the physical needs of the group are not satisfied its physical health declines; and if the psychological needs are not satisfied its social health declines. And a decline in social health may be even more devastating in its biological consequences than a decline in physical health.

When a group is regarded in these two ways—and it must be so viewed if we are to see the problem properly—we come to realize that measures to improve physical health, such as improved nutrition, better dwellings, fitter clothing, and the provision of medical salvage and sanitary services, however necessary and desirable these may be, cannot in themselves

avert social disintegration or impede its progress. This can only be secured by a consciously directed attempt to ensure, as far as possible, the availability of and the integration of the social circles necessary for the healthy ontogenesis of the lives of its members.

The object of study called "society" is exceedingly complex and in this brief discussion attention has been given only to those dynamic aspects whose appreciation is fundamental to the understanding of social sickness. We began by indicating the nature of what may be called the "functional structure" of society and showed that when its equilibrium is gravely disturbed the group tends to disintegrate. The presence of social disintegration, whether in a community or in one of the groups contained within it, is revealed by typical symptoms which take the form of high or rising rates of one or more of the morbid happenings which it is convenient to subsume as the "psychosocial disorders."

A preliminary definition of social disintegration would be: *A sickness of social groups whose presence can be appreciated only when the indices of social health are investigated in addition to the indices of physical health.* Or alternatively: *A sickness of social groups in which the application of a psychosocial approach provides information of high etiological relevance.*

In other words the estimation of the degree and kind of social disintegration prevailing in a society depends fundamentally on quantitative factors.

After a brief account of the pathology and symptomatology of the sick society, we turned to its etiology. The focus of attack on this problem lies in determining the group characteristics and the environmental factors which too intensively or too rapidly break up established social patterns, that is, disarrange

the arrangements of the group for producing its particular form of social goods. Etiological knowledge of social disintegration is very necessary if guidance is to be obtained for social therapeutics whereby societies that are sick can be rendered healthy.

The medical approach to society in terms of its functional structure and of sociodynamics is further illustrated in the next two chapters, which describe the social sickness manifested by the national community of Britain and by the occupational community of the miners in the years before World War II.

CHAPTER 9

The Case of Britain as a Sick Society

We had the experience but missed the meaning,
And approach to the meaning restores the experience
In a different form, beyond any meaning
We can assign to happiness.*

—T. S. ELIOT in *The Dry Salvages*.

THE COURSE OF SOCIAL SICKNESS

THE ONSET and course of the decline in the social health of Britain have already been partially outlined in the preceding chapters. Judging from the movement of the fertility rate the social equilibrium of this national community began to be gravely disturbed around about 1870. By 1900 the fertility rate had dropped 25 per cent and a rise in the incidence of the psychosomatic affections began to be revealed. World War I lay midway between 1900 and 1930, by which time the fertility rate had fallen by 60 per cent and the psychosomatic affections—especially duodenal ulcer, gastritis, and “fibrositis”—were appearing in epidemic form to attain a high level around about 1935. Ten years later the general election of 1945 showed an unprecedented political turnover toward state socialism—a happening which probably represented a conscious acceptance by the community of the irrevocable breakup of many old social patterns, a process that had been accelerated, willy-nilly and undesigned, as a response to the pressure of enemy beleaguerment. The year 1945 represents,

* By permission of Harcourt, Brace and Company, Inc., New York.

therefore, a critical point of some kind, but it is too early yet to assess its significance and there is no assurance that the nadir of the decline of social health has been reached.

Serious social sickness during this period of historical time was not confined to Britain but affected many countries of "Western civilization" both in Europe and in lands across the sea, including the British Dominions and the United States. Although the temporal behavior of the disease showed some variations, in all these countries the biological indices (so far as evidence is available) revealed its presence and its growth. Even the phenomenon of sex reversal that occurred in the incidence of peptic ulcer and diabetes appeared in their statistics also.

THE DISRUPTION OF SOCIAL PATTERNS

The changes in the worlds of the child and of the adult that took place between the 1860's and the 1930's in Britain and that were described in Chapter Six may be reformulated in terms of the changes in various social patterns.

Family pattern. After 1870 the family pattern began to undergo remarkable modification associated with the disappearance of the "father" as its leader. This tendency made the family a "leaderless group" and therefore subject to disintegration which was clearly revealed by such indices as the falling birth rate and the increasing divorce rate. The new lives born in diminishing numbers into the increasingly disintegrating family groups (which became increasingly repellent to those "pilgrims of eternity") failed to achieve natural psychological bonding and became emotionally isolated. Many were prematurely compelled to assume the rigid timetable design for living that progressively characterized this period

of history so that when they grew up, they came to reject not only the outer child (as revealed in family limitation) but also the inner child in themselves, with the consequence that, psychologically speaking, they were cut off from the living roots and foundations necessary for the building of a mature, adult personality. Another feature of the breakup of the family pattern was the progressive loss of the sense of kinship; and the old bonds with the "relations" became progressively attenuated.

Play pattern. The play pattern of the early social phases became modified by the decline in the number of children in the family. Increasing introduction of cheap toys as well as the growing popularization of the movies deprived the play group of the instigation to find its own amusements, and the increasing emphasis on school education and the need to pass examinations, limited the hours available for the spontaneous expressions necessary for adequate emotional and social development of the personality.

Sex pattern. With the progress of female emancipation there was not only an increasing abandonment of the traditional patriarchal setup of the family but there was also an increasing tendency in many women to abandon the role of a mother figure for that of a fellow citizen. The "rise of the new woman" inevitably altered the personal relations between man and wife. The dependent tendencies of the male—his need, when off duty from his masculine role, to be fussed over, petted, and obeyed—were no longer satisfied by his "women folk" so that he tended to become anxious, resentful, and overindependent. Reciprocally the dependent tendencies of the woman—her need to be protected, supported, appreciated, and ordered—could no longer be readily satisfied by the baffled husband. As a result the interplay of spontaneous feeling between man and

wife tended to become jammed. Contemporaneously, women were increasingly entering industry, business, and the professions, thus attempting to secure the independence and the self-support which had hitherto been regarded as the prerogative of the male. These endeavors were associated with the growing availability of cheaper and more fashionable clothing, and the female masses who in many of the poorer industrial areas had hitherto covered themselves with shawls were enabled to satisfy their narcissistic tendencies to a degree previously unobtainable.

Religious pattern. In the religious pattern of 1870 the Protestant churches, chapels, and missions probably commanded the adherence of the majority of the population, but attendances at services progressively declined until the larger proportion of the people ceased to be related actively with the religious groups of their fathers and forefathers. This group dispersal was not, however, a feature of the Roman Catholic Church which tended to become socially attractive rather than repellent. Contemporaneously, new religious groups appeared, notably spiritualists and Christian Scientists.

Economic and industrial patterns. The particular kind of economic pattern which began to emerge in western Europe at the time of the Renaissance and the Reformation and which became elaborated up to the end of the nineteenth century has been described by economists in terms such as market economy, capitalism, and economic individualism. With the onset of the industrial revolution it extended and expanded with progressive acceleration, and the philosophical economists of the eighteenth and early nineteenth centuries came to regard it as something naturally ordained and therefore subject to economic laws analogous to and as cosmically determined as the Newtonian laws of physics. This belief con-

tributed to the adoption of the political policy of laissez faire. The quantitative growth of the market economy began, however, to slow down in Britain around about 1870 and after this date "individual freedom in economic life became increasingly subjected to limitations, such as tariffs—to protect farmers; cartels—to protect manufacturers; and trade unions—to protect workers."¹ The economic indices of the breakdown in this long-established economic pattern included increasing unemployment ("the accepted index that a given economic organization is in the process of breakdown"²), falling or stationary levels of production, increasing absenteeism among workers, declining output per worker, and a growing prevalence of strikes or lockouts. As these indices resemble the biological and medical ones in that they can be expressed in numerical terms they can be used as a measurement of the trend of social disintegration regarded economically.

Occupational pattern. The progress of scientific discovery and the application of new inventions were attended by rapid changes in the pre-existing occupational social patterns. The traditional tradesman, so often a Jack-of-all-trades and a handy man, was replaced by the "specialist," and as the psychological bonds of a common working interest—which are both internal and external—became attenuated, what interest remained (if any) became confined to a single part or a particular function. Many occupational groups began to fall sick, and with the concomitant loss of the sense of their social purpose the output of social "goods" progressively declined both per man and per group. These tendencies were furthered by the development of big business—which kept on "rationalizing,"

¹ Stark, W. (1944), *The History of Economics*, Kegan Paul, London.

² Glenday, R. (1944), *The Future of Economic Society*, Macmillan & Co., London.

and in more ways than one!—and as the family firm disappeared, personal relations between employer and employees were severed until ultimately the majority of workers were viewed by the management merely as industrial units and not as members of an occupational social group. Distracted or ambitious managers—who by this period were also specialists—began to talk of the need for teamwork, unaware that the prerequisite of any team is a group that is socially healthy, and that without this the emanation called *team spirit* cannot appear.

Political patterns. The changes in the various political and legislative patterns in the course of the past century are so considerable that it is not easy to disentangle to what degree and in what way they have separately contributed to the fostering of social sickness. Certain writers have suggested that the increasing trend toward ever-greater governmental or bureaucratic control at the center played a significant part in stultifying local autonomy and personal initiative. Yet, as the market economy began to break down, an increase in centralized regulation appeared inevitable if the basic material needs—feeding, shelter, freedom from infectious disease, and nursing care—of a considerable proportion of the population were to be ensured. Other important centralizing features of the period included the rise of trade unions, of federations of industrialists, and of groups of financiers—all developments that tended ultimately to emphasize sectional interests to a degree that frequently failed to take into consideration both their proper social purposes and the welfare of the larger containing community. Thus the trade unions, although they secured remarkable improvements in the physical conditions of working and in material benefits, adopted the principle of least production and thereby came to contribute, though with the best

of intentions, to the acceleration of the disintegrating process during the interwar years. (Clinical examination of individual workers shows how the slowdown [Scot "ca' canny"] may be almost as psychosomatically devastating to those who practice it as is loss of occupation for prolonged periods.) Yet as unemployment grew, the adoption by the trade unions of the principle of least production appeared inevitable and appropriate if even more of their members were not to fall out of work. The phenomena of social fragmentation were revealed not only in the growth of class war (with the emergence of leadership for destruction) but also in the revival of regional nationalism with the emergence of leadership for separation. Excluding the special case of Ireland, whose demands for home rule had haunted the political scene of the nineteenth century, we find during the twentieth century the communities of Scotland and Wales, long regarded as welded with the English community in a way Ireland had never been, beginning to show signs of expressing a conscious desire for separation by producing "nationalists" who demanded economic, political, and cultural independence. This movement for separation becomes more understandable when we realize that the degree of social disintegration in these countries was in a number of respects even more severe than in England. Thus the economic index of unemployment was at a level so much higher in Scotland and Wales that these became officially labeled by the government in London as "distressed areas" during the period between the world wars. Figures of the relative incidence of psychosomatic affections are not available, but peptic ulcer in Scotland during the quarter century before World War II provided a death rate significantly higher, at least with respect to males, than in England. The rate of increase, however, during this period was higher in England.

Another development of political and biological interest was the phenomenon of mass emigration from Britain during the nineteenth century. From the 1820's onward it occurred on an increasing scale and in its earlier phases would seem to have been largely promoted by the widespread physical misery and starvation prevailing both in urban and rural areas after the Napoleonic Wars. Following the failure of the potato crops in Ireland in the 1840's emigrants poured from that country on a scale relatively much greater than from Britain. The pressure of physically harmful environment is, however, only one of the many "causes" for emigration. Another is the influence of the "group dispersal" or "social repulsion" that attends the development of social sickness. This may have played an important part during the last half of the century. The upward trend of emigration from Britain did not, however, continue as its social sickness grew. The outflow reached its maximum during the decade 1881-90, when over two million persons left the country for the British Colonies and the United States, after which it gradually diminished to rise again in the years preceding World War I, after which it slowed down. The decline commencing at this period may seem theoretically anomalous, but there were a number of reasons for it. One was the commencing onset of serious social disequilibrium in the countries of destination whose "social attraction" became thereby relatively diminished, as was evidenced by the increasing proportion of emigrants returning to Britain in the years both before and after the first war. Another was probably associated with the progressive increase during the twentieth century of the appearance both of "personalities" with obsessional trends (which included that of stay-putness, i.e., safety first) and of "personalities" with dependent helplessness, the latter characteristic being actively

politically facilitated by scales and conditions of public relief that removed all stimulus to self-help and self-assertion. Yet another reason was the ultimate setting up by the British Dominions and the United States of barriers against immigration at a time when their own social disequilibrium began to become even more severe. Although the mass emigration from Britain during the nineteenth and early twentieth centuries was clearly a resultant of a complex of forces, the etiological role of the sick community cannot assuredly be omitted from consideration.

The phrase "public health" became increasingly used by politicians and bureaucrats from 1848 (the year of the first Public Health Act) onward. But there was no realization that they were using the term solely in its reference to "physical health" to the exclusion of "social health." This one-sided view led to faulty inferences and inappropriate action. During the late 1920's and early 1930's, when the rate of incapacitating and chronic sickness among insured workers increased, the Government Health Departments issued a number of circulars accusing the panel doctors of "faulty certification" on the grounds that sickness could not possibly be increasing at a time when statistics showed the public health of the country to be "improving"! The practitioners, who had been trained in a purely somatic approach to medicine and had received no instruction in the etiological importance of environment in its psychological aspects, found the accusation disquieting and difficult to answer. They had to admit that they were puzzled, for the patients they certified as unfit for work were certainly ill, though the reason for the sickness was often "vague." But the growing knowledge of the psychoneuroses and of the etiological implications of psychological factors enabled doctors to appreciate that many of their working-class patients

were being made ill, or prevented from recovering, by some of the "social conditions" of the times—and these included legislation. Thus the official scales of sick relief (insurance benefit plus public assistance) were often greatly in excess of what was available to able-bodied men who were unemployed, and, on occasion, even in excess of the wages paid to those who were actually at work especially when there was a large family. (I remember a convalescent miner explaining to me that if he returned to underground work in the pits he would receive only 1/- a week more than he would if he remained on the sick list.) As unemployment and sickness grew, the amount of public money expended on relief increased. The Means Test was accordingly introduced. This tended to precipitate social disintegration still further in that younger members of working families when they fell unemployed often preferred to go into lodgings rather than remain at home to be supported by the earnings of their parents and siblings. In a different field the indiscriminate decanting of slum populations into new slum-clearance schemes forcibly disrupted their accustomed pattern for living, and since no facilities were provided for the development of a new and integrating pattern, an immediate effect was to increase the incidence of sickness in the transferred groups to a degree significantly greater, as special studies showed, than they had experienced when living in their squalid homes and purlieus. This finding presented medical officers of health with an unexpected conundrum! Another index of this artificially imposed social disintegration included an increase in antisocial behavior in the form of malicious destruction of the property; and still another was *group dispersal* manifested by the rapid return of many of the transferred families to the more socially attractive surroundings of the remaining slums. These are but a few examples of how,

in the absence of the awareness of social sickness, measures so often "social" in intention became antisocial in effect.

It is evident that social sickness can neither be identified nor its significance understood so long as the indices of "physical health" alone are regarded as the sole measurements of the true state of the public health. In the absence of such a realization Sir George Newman, Chief Medical Officer of the Ministry of Health, in his annual report on "The State of Public Health, 1932," could not do otherwise than write that the effects of social depression and unemployment were "not measurable," because there was "no evidence of any general increase in physical impairment, in sickness, or in mortality." (The evidence provided by the morbidity statistics of the insured population that sickness *was* increasing was, as already noted, regarded as suspect and dependent on faulty certification.) When mass unemployment appeared as an epidemic it therefore was not recognizable as a serious health problem, otherwise it might have been treated—like an outbreak of typhoid fever—in terms of etiology. Instead it was countered palliatively by the dole. But as this was not being accompanied by adequate measures to supply new social occupational circles for those who had been deprived of their former ones it merely served to aggravate the general social disintegration. And thus it happens that between the world wars we find a strange spectacle. On the one hand a vast body of men with no work to do, and on the other a vast amount of work to be done. Not until the second war were these two brought together. This achievement suggests that the preceding economic and political impotence to unite men and work had been dependent not so much on objective material difficulties as on subjective psychological ones in the form of rationalized thinking and traditional prejudice. The historian of the future may

well marvel at the blindness of the generations that knew so clearly the effects of putting cholera bacilli in a public water supply but that remained so oblivious of the many psychological bacilli which their outlook and legislation were injecting daily into the communal organism.

Although political "causes from within" were relevant in the maintenance and increase of social disintegration, due weight must also be given to political "causes from without" in the form of the invasion of foreign ideas, economic rivalry, and militaristic challenge. The interaction of all these forces led finally to the outbreak of World War II, and not till the bombs began to fall did many pre-existing beliefs and prejudices come to be recognized as being no longer eternal verities but psychological artifacts. What previously had appeared as "reality" was now revealed as "unreality"; the fantastic became the actual; and the impossible the realizable. The acceptance by the community of what had happened and its desire for political changes that would be socially integrative obtained "conscious" expression in the General Election of 1945. Almost immediately it became evident that wishes and good intentions were not enough. Causes from within were theoretically controllable, but where was the knowledge of the etiology and therapeutics of social ill health corresponding even remotely with what was available relating to "physical" ill health? And causes from without, which were so largely beyond control, obstinately refused to abate their pressure.

INDICES OF SOCIAL SICKNESS IN BRITAIN

To the increasing availability of adequate food, material goods, medical care, and applied hygiene, the population of Britain responded by a progressive improvement in the indices

of its "physical health." But to the disruption of its social patterns, proceeding at a rate so rapid that social disequilibrium merged into disintegration, the community responded by progressive deterioration in the indices of its "social health." It is convenient at this point to collate the various psychosocial disorders mentioned in the course of this study whose frequency rates might be used (with adequate reservations in interpretation) as indices of the social health of Britain.

Biological and Medical Indices

1. Declining fertility.
2. Increasing incidence rate of psychosomatic affections.
3. Loss of distinction in psychological sexual characteristics (*see* pp. 66 and 118).
4. The younger age groups becoming increasingly affected (*see* pp. 66 and 133).

Economic and Industrial Indices

- | | |
|--|--|
| <ol style="list-style-type: none">1. Increasing sickness rates.2. Increasing absenteeism.3. Increasing fall of output per worker.4. Increasing unemployment.5. Increasing strikes. | } These are also medical and biological indices. |
|--|--|

Overtly Antisocial, i.e., Criminal Indices

1. Increasing juvenile delinquency.

Statistics relating to juvenile delinquency need to be interpreted carefully, but such evidence as is available suggests that it increased in frequency by at least 60% during the quarter century between 1913 and 1938. Its incidence was less in rural than in urban areas and less in families that were intact than in those that were crudely "broken"—as when "the child is illegitimate; or the mother is a widow; or a husband is living in the pub; or they live a cat and dog life; or she has remarried or is living with another man; or

else it is the father who has taken a fresh partner—official or otherwise.”² The “crudely broken home” is a common biographical finding in the early years of many “psychopathic personalities,” and these constitute a not inconsiderable proportion of the “criminal classes.” The more subtle breaking up of family and play patterns is probably etiologically related to the long-term rise in incidences. During each of the two world wars the incidence rose sharply, a finding that is usually attributed to the crude “breaking” of many families on those occasions by the absence of the father on Service and of the mother at war work.

2. ? Increasing suicide.

Political Indices

1. Social fragmentation, e.g., as in class war and revival of regional nationalism.
2. Emergence of “leadership for destruction.”
3. Mass emigration (group dispersal) in early phases, later replaced by diminishing emigration associated with an increase in dependent helplessness and in obsessional stay-puttness.

Loss of Self-Respect Indices (see Note on page 156)

Cultural Indices

1. The increasing intrusion of manifestations of the primitive and visceral, including “sex.”
2. Increasing intellectualism and obsessional planning.
3. Decline of vital “religious” faith, i.e., the loss of the sense of origins, purpose in life, and cosmic destiny.
4. Increase in “escapism” as in mass gambling, show-going, etc.

Note on cultural indices. Indices in terms of art and religion are not so readily expressible in numbers but they, too, furnish valuable pointers to the course of things. In pictorial art the essentially representational tradition in painting that had been in continuous development from the period of the Renaissance began to be supplemented in the last third of the nineteenth century—about 1870–80—by experiments in search of “form.” These were followed in the twentieth century by further experiments in “ab-

² Jones, A. E. (1945), *Juvenile Delinquency and the Law*, Pelican Books No. 158, Harmondsworth.

straction," most notably exemplified in surrealism in which fragmentary and distorted viscera, genitals, and bodily appendages were depicted in a setting of "pure" form. As artists increasingly turned away from the external world of society, they increasingly discovered that the images of their inner world were symbolic reflections of the disintegration in the outer, as is exemplified in the "progress" and increasing "modernity" exhibited in the works of such painters as Picasso. Literature also became characterized by an increase of intellectualism (i.e., of abstract form) and of visceral intrusion. This is illustrated in writers whose paragraphs of discursive description and reasoning are interrupted by the gratuitous interposition of references to bowels, tripes, excretions, and so on. Poetry, too, was similarly affected. Words and ideas relating to the visceral and sexual functionings constantly and suddenly intrude between lines of emotionally sterile abstract statement. Love poetry in the old sense ceased to be written, for love was no longer sacramental but excremental—an affair not of lyrics but of technics. In music the old tradition, expanding and developing from Palestrina to Beethoven, began to be broken by musicians who composed in terms of intellectual theory or turned back to tom-tom and savage and animal noises. The growth of jazz among the "folk" from 1910 onward was but a further symptom of this increasing intrusion of the visceral and the primitive, occurring when the casing of the old culture was cracking.

In religion, also around about 1870, began the period of questioning of the faith that had been adopted at the time of the Reformation and this was followed by a progressive decline in the awareness of and communication with God—the Power, Cause, and Being beyond genesis, ontogenesis, and death. Concurrently there was an increase of intellectual interest in religion, and the concomitant return of the primitive was shown in the revival of spiritualism and the importation of theosophy—also, perhaps, by outbreaks among the intelligentsia of conversion to Latin Catholicism.

These happenings, however, are not necessarily to be viewed solely in their negative aspects as tendencies toward disintegration. They can also be considered in their positive aspects: as a search

for renewal by "going back to the roots," as if to seek deeper and wider foundations upon which to build afresh.

The increasing "visceral intrusion" revealed in art and literature prior to the outbreak of World War II had its counterpart in the increasing visceral bodily disturbances reflected in the rising incidence of psychoneurotic and psychosomatic affections; and the growth of intellectualism in art and literature was reflected in the modes of rationalized, automatized, and obsessional existence which increasingly prevailed between the two world wars. An interesting manifestation of obsessional thinking was the growing preoccupation with perfectionistic schemes of administrative planning which, in so far as they regarded the individual as a unit to be used and not as a "life" to be fulfilled, tended—irrespective of good intentions, and it is with these that Hell is said to be paved—to inflict damage upon the vitality, vigor, and enterprises of the group.

Finally, but not least important as a cultural index because it is measurable, was the increase of the phenomenon of mass escapism expressed in such forms as intensive and extensive gambling, show-going (football games, movies, etc.), and novel reading. None of these activities are in themselves abnormal. Indeed occasional indulgence in them is natural, even salutary. But continuous and undue preoccupation with them is pathological. All may be regarded as manifestations of the return of the primitive. Thus gambling (whether in the form of football pools, dog racing, or horse racing) represents the upsurge of primitive fantasies, thrills, and excitements not inappropriate at the genital phase but thoroughly so in adult life. Its "victims" have escaped from a real into an unreal magical world in which anything may happen, creative effort becomes meaningless, and where every occurrence is experienced as a favorable or unfavorable omen.

THE ETIOLOGY OF SOCIAL SICKNESS IN BRITAIN

In the case of a large and intricate modern national community such as Britain it is not easy to assess which of the

characteristics and factors abstractable from the total flux were etiologically most relevant to the rapid disintegration of social patterns and to the nonappearance of new and socially integrating ones. Indeed, because of the complexity of the problem any such assessment is liable to be a rationalization. Irrespective of personal prejudices, however, two conclusions seem inescapable.

The first is the inadequacy of purely physical approaches to "explain" how the rate of social disintegration actually accelerated during the very period of historical time when the basic material needs of the masses were becoming increasingly satisfied. This consideration has a bearing on "methods." It suggests, for instance, that just as "somatic medicine" was found insufficient to interpret many phenomena obviously lying in the sphere of medicine and had therefore to be supplemented by a psychological approach, economics also will require to be supplemented by a psychological approach. As the need for this viewpoint becomes clearer, economics will be revealed as a branch of the sciences dealing with social relations.

The finding that serious social sickness prevailed in many of the national communities of prewar "modern Western civilizations" leads us to the second conclusion: that the "causes" of social disintegration were not peculiar to Britain. This consideration raises problems relating to the roots and growth of this Western civilization, including those of its typical economic pattern, the market economy, which apparently first began to emerge about the time of the Renaissance and the Reformation.⁴ This period of history also saw the discovery of the "scientific method" which in succeeding centuries was progressively applied to the material aspects of the universe. The

⁴ Tawney, R. H. (1941), *Pelican Books A23*, Harmondsworth.

new knowledge that ensued gave Western man (and during the twentieth century non-Christian Japanese man) an ever-increasing power over his physical environment, but—and the implications of this are not always realized—it also influenced profoundly his thoughts, beliefs, and feelings about nature—and nature includes man and his fellows. The question therefore rises: Did the viewpoints and feeling points achieved by Western civilization through the advance of the physical sciences give rise to thoughts and beliefs concerning man that were really “unscientific” inasmuch as they were based on a too narrow range of observation and discourse? And did those thoughts and beliefs determine in turn modes of behavior and action (domestic, sexual, educational, religious, economic, political, and cultural) which, with an ever-increasing distortion of the total world picture, became ultimately so unrelated to “reality” that they brought about the failure of biological adaptation revealed in social disintegration? The question might be better formulated, but it is a legitimate one and well worth asking. To answer it would require, however, a degree of nonattachment and freedom from bias not easy to attain.

THE QUESTION OF REINTEGRATION

What is the future of a nation, community, or society undergoing the process of social disintegration? Clearly two extreme courses are possible. The process of disintegration may continue relentlessly and, as the birth rate will concomitantly decline, this trend would in time entail the extermination of the genetic stocks comprising the affected group. Alternatively a new social pattern may emerge, either gradually or abruptly, like a Phoenix from the ashes of the old. (Carlyle expressed this possibility by saying: “Ever as the ashes of the old are

blown about do organic filaments of the new mysteriously spin themselves." And a century later, T. S. Eliot quoted: "In my end is my beginning.") In other words the group may react to its increasingly intolerable inner environment of disappearing bonds by, so to speak, throwing out new bonds but in a different arrangement and in a new design. According to certain economists the national social pattern which would seem most likely to emerge in Britain (as well as in countries which belong to the disintegrating Western civilization of the market economy) is one that could be described as a service state⁵ or as the phase of economic stabilization replacing that of economic expansion.⁶

In Britain under the stress of World War II many old group bonds disappeared and new social patterns began to form of a nature that suggested the possibility of the development of a service, but not necessarily of a servile, state. When the war ceased the Labor government then assuming office began passing a series of measures which they believed would secure this end. But there were many impediments. One real difficulty in securing the recovery of Britain from its social sickness was the absolute imperative of this island community, in the existing state of world economy, to export manufactured goods to acquire funds to buy the food needful for the very physical existence of its population and the raw materials necessary for its factories. But the high degree of "inability to work" (whether as revealed in the high sickness rates dependent on psychoneurotic and psychosomatic illness or in the form of correlated disturbances such as "debility," apathy, tiredness, and absenteeism) which is an inevitable concomitant of social ill health, rendered this achievement very diffi-

⁵ Glenday, R., *op. cit.*

⁶ Mumford, L. (1944), *The Condition of Man*, Harcourt, Brace, New York.

cult. In addition the hampering restrictions on individual spontaneous creativity which so readily become features of centralized planning, especially in a time of scarcity, exacerbated rather than alleviated the communal symptom of "poor output." Another difficulty was the absence of a world community. There was merely an aggregate of national communities. The United Nations, which first met when the war ended, could scarcely be expected to act as a true board of international social health in the absence of the existence of scientific knowledge of social pathology. The national groups of Soviet communities did, however, believe that in communist doctrine they possessed the guidance for action necessary for social therapeutics—and since the treatment was known, it was imperative to apply it—an attitude that inevitably intensified the social disequilibrium in many countries in which social sickness was already severe. One important advance was made by the United Nations, however, toward the improvement of the world's "physical health" by its endeavors to supervise and control the supply and distribution of food.

Since the health of Britain in both its physical and psychological aspects depends perhaps even more than most countries upon "causes from without" its recovery from social sickness is attended by peculiar hazards. A certain sign that a turning point had been reached and that a reintegration was setting in would be a progressive decline in the "psychosocial disorders." (This would include a progressive rise in the fertility rate, for no community can be regarded as socially healthy if it goes on failing to reproduce itself.)

CHAPTER 10

The Mining Community as a Sick Society

THE COMPLEXITY of the issues involved in discussing a case of social sickness in a great national community is considerably reduced when we come to study smaller or more specialized social groups. This may be illustrated by describing the serious social sickness that affected the mining community of Britain, which during the twentieth century became an increasingly sick society readily recognizable as such by the rapid deterioration of its economic and industrial indices and confirmed by the biological indices—a finding of the greatest interest and importance.

SOCIAL DISINTEGRATION IN THE MINING COMMUNITY

ECONOMIC AND INDUSTRIAL INDICES

“Trouble in the coal fields” has been a feature of the headlines in the newspapers since the beginning of the twentieth century. Between the two world wars the rate of disequilibrium became accelerated, as was evidenced by growing unemployment, epidemics of strikes (including the Great Strike of 1926), the features of falling output per worker, increasing absenteeism, high sickness rates, and the drift from the industry.

From the standpoint of the individual medical psychologist,

symptoms such as *poor working output*, *absenteeism*, and *high sickness rates* might be regarded to a large extent as expressions of "neurosis"; and from the standpoint of the politician they might be regarded as manifestations of the deliberate policy of *ca' canny* (whether imposed from without as by the trade unions) or imposed from within by the belief commonly held during the time of the rising unemployment that the longer the available work could be spun out the less chance of the individuals still at work losing their job. From the standpoint of an exasperated management they might even be regarded as manifestations of sheer badness! But from the point of view of social pathology these symptoms are best understood as various "medical" expressions of the loss of the sense of social purpose by the group. Similarly, *repeated strikes* together with the rise of *leadership for destruction* are understandable as political expressions of social fragmentation, and the *drift from the industry* as an economic expression of group dispersal. The spread of these psychosocial disorders by "case to case infection" was often clearly visible. An example was given in the first report of the Committee on Miner's Nystagmus which relates how when several sufferers from this affection became members of the working group of a pit hitherto free from nystagmus cases, the disease would spread rapidly throughout the pit. Unfortunately the report does not mention the pre-existing state of the social health of the group that became infected, but we can infer that, for one reason or another, it must have been poor and its group immunity low.

The observation of the late Dr. Dickson¹ made in 1936 on the feelings of miners are worthy of record. He noted that the miners "were no longer contented but seemed to have a feeling, not of active discontent with the conditions of working but

¹ Dickson, D. E. (1936), "The Morbid Miner," *Edin. Med. J.*, p. 696.

of passive *dissatisfaction*. This feeling was most marked among the younger miners. All miners, however, agreed that they did not have the same pleasure in their work as they used to have in the pit. Given any opportunity they would stop work at a day's notice simply for the sake of not having to go down the pit. The chief reason they gave was that they were being driven much harder because they had to keep up with the machinery. There was no doubt about the feelings of *discontent* among the younger men." He was also surprised and impressed with the fact that "not one single miner mentioned the question of wages," and he concluded that "a mere increase of wages would not alter their feelings about the conditions of work." The observation that the feelings of discontent and dissatisfaction were greatest among the younger men is in alignment with the findings that absenteeism and poor output (so prominent a feature during World War II) as well as incapacitating sickness and psychosomatic affections were also most marked in the "young miner."

CULTURAL INDICES

Cultural indices include not only the increasing decline of vital religious faith (as perhaps manifested by the diminishing attendance at churches and chapels) but also the mass increase of gambling and of show-going (in the form of attending football games, dog-racing tracks, etc.)

BIOLOGICAL INDICES

Examination of the biological indices emphasizes the deep-seated nature of the social sickness of the mining community. Both the increase in the incidence of psychosomatic affections and the decline in the birth rate were outstandingly higher

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than in other occupations during the corresponding period of time.

The increase of the psychosomatic affections and the high level of the incidence in miners during the 1930's is described in the Appendix. In the course of the twentieth century their frequency increased at a rate definitely greater than among the male population generally, so that by the 1930's their incidence in miners was considerably higher than in workers who were not miners. The rate of increase was, moreover, highest in the youngest age groups—a finding which suggests the statistical feature of “retrogression of the age peak” associated with a rising prevalence of these affections and, presumably, also with a rising prevalence of the psychosocial disorders generally.

The birth rate. The figures dealing with the incidence of the psychosomatic affections are based on Scottish experience and statistics, because no corresponding material was available for England. In the case of the birth rate the opposite state of affairs pertains. For analysis of the data concerning the movements of the birth rate in miners I am indebted to a special study by Innes,² who showed that in England and Wales during the ten years between 1921 and 1931 the adjusted birth rate of skilled miners (i.e., hewers and getters) fell by the astounding figure of 50 per cent—an exceptional rate of decline outstandingly higher than occurred in any other occupational social group. The fall in the birth rate of unskilled mining workers was considerably less, namely 28 per cent. Taking the two classes together the fall was 36 per cent. The greater fall in the skilled miners than in the unskilled was probably

² Innes, J. W. (1941), “Class Birth Rates in England and Wales,” *Millbank Memorial Fund Quarterly* XIX, p. 72.

partly associated with their higher rate of group dispersal during the period, which affected chiefly the younger age groups,³ a phenomenon which also had the effect of preventing the general death rate in skilled miners from falling in consonance with that of unskilled mine workers.⁴

The sicknesses of miners' wives. The increasing psychological ill-health of the miners which reflected the increasing social sickness of this occupational group could scarcely fail to be reflected also in the health of miners' wives. Unfortunately no morbidity statistics exist to provide information about this. It may be noted, however, as regards mortality, that during the years 1930-32 the death rate in wives of skilled miners was at a level definitely higher (about 40 per cent) than that of wives of workers who were not skilled miners.⁵ It was also higher than the death rate of wives of unskilled mine workers, which was approximately only 8 per cent higher than the wives of unskilled workers who were not miners. (The corresponding excess in the death rate in wives of skilled textile workers was 24 per cent and of wives of unskilled textile workers 9 per cent.) A feature common to the deaths of wives of skilled mining and textile workers—the two classes that showed such a remarkable rate of fall in births—was the high incidence of mortality from labels which covered the hypertensive cardiovascular disorders. It is impossible to assess the

³ *Registrar General's Decennial Supplement for England and Wales* (1932), Part II, p. 82.

⁴ The only other occupational social group showing a comparable rate of decrease in the birth rate between 1921-31 was that of textile workers. Unskilled workers in textiles showed a fall of 38%, whereas skilled workers showed an even greater decline: viz, 43%. For the two classes combined the fall amounted to 39%. Data relating to the incidence of psychosomatic affections among textile workers are not available. From the index of the birth rate alone, however, one would suspect that social disintegration was far advanced in the textile occupational group also and this is further suggested by its economic index of increasing unemployment during that period.

⁵ Innes, J. W., *op. cit.*

significance of this, but it is tempting to conjecture that it represented the somatic manifestation of prolonged frustration and exasperation in a class likely to contain more obsessional personalities than their unskilled counterparts.

THE ETIOLOGY OF ONSET OF SOCIAL SICKNESS

Some insight into the causes of the onset and development of social sickness may be obtained by asking the "questions of etiology of onset" described in Chapter Eight.

1. *What kind of social group was this, that is, what were the group characteristics?* Before World War I the miners of Britain were a sturdy, hardy people who came from stock which had been engaged in mining for many generations. They lived adjacent to the pits in small towns or villages or in lonely "miners' rows" scattered over widely separated parts of the country. Since their residential and working environments were alike isolated from the larger community there was little contact with the outside world and they suffered the minimum of invasion from it. Almost automatically sons took over from their fathers the traditions of being a collier and on leaving school followed their footsteps down the mine. The communities were largely self-contained and had their own long-established arrangements both for living and for working. Many of the inhabitants were closely associated with churches or chapels, and they had their own system of sports and games. As regards their working patterns the miners formed themselves into little groups, and boys who were friends or relatives often became working mates for the rest of their lives. The work was done almost solely by hand and each man labored according to the rhythms natural to his working group. There was little hurry or rush; the hardships

of their life were accepted and shared; they knew their job and were fiercely proud of it. Their particular brand of social goods was in high and growing demand. It seemed it would be so indefinitely; but early in the course of the twentieth century factors from without began to initiate serious social disequilibrium which during the next forty years steadily progressed into social disintegration.

2. *Why did the mining community fall sick when it did, that is, what were the environmental factors?* These were numerous and varied but some of the more obvious may be conveniently summarized under the following headings:

(1) *The increasing mechanization of the pits.* Dickson, in his account of the Fifeshire miners, comparing the conditions of work between 1916 and 1936, emphasized the "absolute revolution" that had taken place during these twenty years in the pits of the district in which he practiced. In 1916 coal was obtained almost solely by individual hewing, whereas by 1936 over 90 per cent was cut by machinery and the coal removed by mechanically operated conveyors. As a result, the task of the miner was reduced to "mere shoveling of the coal." In 1916 the older miners, because of the relative quiet in the pit, were able from experience to recognize the cracking of the strata and by thus sensing possible danger were enabled to take the necessary precautions. But by 1936 the noise of the machinery at the coal face was so "terrific" that warnings of this kind could no longer be heard. The introduction of machinery also prevented the miner from being able to work "at his own time" or to "take his piece" (eat his carried food) at his leisure. Instead he had to rush his meal in a quarter of an hour, "this period of fifteen minutes being the only break allowed during a seven-hour shift which was spent in working

in positions and attitudes which must be seen to be believed." Another and important accompaniment of mechanization was the rapid breakdown of the traditional working pattern of groups of mates united by bonds of affection in a common social purpose, and its substitution by a "system" in which emotionally lacerated or isolated men were unitary parts of a gigantic clockwork. (Affectionate relations between members of an occupational group is a characteristic that favors "good morale," i.e., group coherence and the maintenance of the sense of social purpose in the face of hardship and danger.)

(2) *Improved communications with the outer world.* Transport communication of the inhabitants of the mining villages with the larger urban centers was mainly by railway before World War I, and journeys were few because the mining communities generally were self-sufficient in shopping, entertainment, and pastimes. The advent of the motor bus, the growth of the cheap newspaper, and the arrival of the movies all acted as an invasion from the outside world which disrupted the established social patterns of living after the same manner as the advent of colonists, traders, and missionaries disrupted those of primitive peoples. Those influences from the larger community affected chiefly the younger age groups, the older people still having their cultural roots in a tradition that could no longer nourish the younger generation.

(3) *Unemployment.* Increasing unemployment consequent upon the decline of the heavy industries in Britain and the altering state of world economy deprived many miners of their occupational group and thus disrupted their social pattern not only for working but also for living. As mass unemployment was also a feature of the larger community, membership of a new occupational group was difficult to achieve. Emotionally isolated, the unemployed miners rapidly lost the sense of social

purpose and the "life energy," being denied expression in life-constructive activities, became turned-in, to attack both the "self" and the "society," that is, it became life destructive instead of life creative. A neat example of these phenomena is provided by Dr. R. S. Brock⁶ in his account of miner's nystagmus: "Whenever large numbers of men were discharged from a pit there was at once a rush to be certified. Many of these men declared quite frankly that they could work if only they had a chance to do so, but, as they often added, a man must live. Yet having once been certified—the die having been cast—many of them proceeded to develop chronic neuroses and a depressed and melancholy state of mind." Unemployment affected also the miners still remaining at work. Not only did it inculcate a tendency to ca' canny (which if long practiced became self-destructive) but the employed miners by contact with the socially sick unemployed—often members of their own household—became exposed to "massive doses" of the infection of social sickness to which many succumbed.

(4) *The ill-balanced scales of economic relief in the interwar years.* The scales of monetary benefit under the schemes of national insurance, whether for sickness or unemployment, were inadequate for basic material needs and it became necessary to supplement those by forms of relief, both in money and kind, provided by the Public Assistance Departments of the Local Authorities concerned. The greatest amount of supplementation was required in cases of sickness and it sometimes happened that a man might receive more when he was enrolled officially as "sick" than as "able-bodied unemployed." As the level of wages tended to fall progressively between the two world wars it even happened that on occasion a man would receive more if he were sick than if he were actually en-

⁶ Brock, R. S. (1938), "A Study of Miner's Nystagmus," *Brit. Med. J.* I, p 443.

gaged in remunerative employment. This state of affairs was an additional factor in destroying still further the sense of social purpose, in that as miners came to feel that their particular brand of social goods, namely coal, was not really wanted, "work" came to lose its social meaning. As the result of a cumulation of events miners were no longer, therefore, able to give—only to take—and, as in the young child frustrated by the parent and yet dependent on her, this unhappy state is attended by feelings of guilt which in turn are associated with hostile impulses directed not only against the family (society) but against the self as well.

(5) *World War I.* Many miners left the pits for active service during the war. Their return to the mining community after this contact with a larger world was equivalent to an invasion from without. During the course of this war, also, the industry was entered by others who had not previously been miners, and although no data are available it would seem likely that a number of these would be already psychologically ill and to that extent would act in later years as centers of spread of social disorder.

3. *Why did the mining community take ill in the manner it did, namely by social disintegration?* An answer to this question in terms of social pathology might be summarized as follows:

(1) A general and progressive weakening of the psychological bonds that gave coherence to the community was originally initiated mainly by "causes from without"; so intensively and so rapidly did these break down the traditional patterns of working and living, that equilibrium could not be re-established.

(2) As disequilibrium merged into social disintegration its

typical social pathological phenomena occurred: group dispersal, loss of social purpose, group fragmentation, the rise of leadership for destruction, the lowering of group immunity and case to case infection.

(3) The social disintegration and the social ill-health of the "outer society" of the miner were reflected by corresponding happenings in his "inner society," in the form of emotional disintegration and psychological ill-health, manifested typically in neurotic and psychosomatic illness, poor working output, absenteeism, strikes, and even biological infertility. As the sickness of the community increased, the psychological ill-health of its members therefore also increased, as was shown by the rising prevalence of these disorders that was indicated by statistics.

(4) A special condition favoring the spread and intensity of social disintegration (especially when social disequilibrium became severe) was the presence of *danger* inherent in the mining occupation.

This short survey of the symptoms, course, pathology, and etiology of social sickness as illustrated in the mining community shows that a new insight can be obtained on the old problem of "trouble in the coal fields" when we approach it not in terms of economics and politics but in terms of biology and biosociology: of "life" and "lives." With the alteration in viewpoint the look of the problem changes and it appears as one of *health*! This means an alteration in attitude toward it, and as this happens, we inevitably find ourselves "treating" the problem differently. The new viewpoint has therefore implications for social therapeutics.

Some broad principles of social therapeutics have been noted in the course of this study. The special condition of

danger attaching to the working patterns of the mining community at once draws attention to two considerations: the need for (a) appropriate control of admission to its membership and (b) for securing a setting favorable to the development of a sense of constructive social purpose and the attendant emergence of "good" leaders in alignment with this purpose. Another special condition in the mining occupational group is the increase of mechanization. This draws attention to the problem of working rhythms and working patterns and to the need to allow the group itself (and the subgroups within the larger one) to share in the discovery and development of new rhythms and working arrangements. Working patterns cannot, however, be dissociated from living patterns, and changes in the former imply changes in the latter if a reasonable degree of social equilibrium is to be maintained. Again, as the barriers between the mining community and the larger community have broken down it is evident that the reintegration of the mining community is closely linked with that of the larger community, which in turn is a function of the still greater problem of the integration of a world community. Lastly, and also firstly, no improvement in social health can be expected by the application of measures of physical improvement alone.

CHAPTER 11

Problems of Reintegration

The end is where we start from.*

—T. S. ELIOT in *Four Quartets*.

ONLY A beginning has been made in the application of psychosomatic and psychosocial medicine to the sickness of the social groups. But already, as this study shows, it is possible by means of such working concepts, or "mental instruments," as *a psychosomatic affection, physical health, psychological and social health, and the psychosocial disorders*, to arrive at the formulation of yet another concept, that of *the sick society* (whose pathology is social disintegration) and to appreciate its serious implications for the health, efficiency, and vitality of its members. For the sick society is no mere mystical notion—no metaphorical illness—but an identifiable biological process rotting life at its roots. Moreover, because its causes are quite distinct from those which give rise to the sick population it cannot be averted by action in terms of hygiene, nutrition, and economics. To grasp these matters is the first step toward its treatment and prevention. The new outlook is therefore a great gain to our understanding. Not only does it bring into relationship many hitherto unrelated phenomena, but by enabling us to think differently about events we come to see them differently, feel them differently, and treat them differently. Its applications are numerous and involve depart-

* By permission of Harcourt, Brace and Company, Inc., New York.

ments of activity hitherto regarded as neither the concern of medicine nor likely to be influenced by it.

For example once we have grasped the significance of the sick society, whenever we hear of an occupational group that is failing to produce its particular brand of social "goods" in accordance with its "ideal" social purpose (*see* p. 147) we now find ourselves asking the question: Is this a group that is socially sick? and if so, how? and why?—whereas previously we might have reacted emotionally and regarded its members as "slackers or wasters" or as "heroes and good luck to them," in accordance with our particular feelings or prejudice. We now realize, too, that action taken in terms of emotional reaction (and this includes the sentimental belief that social sickness can be solved in terms of physical improvements alone) is action that is "blind" and therefore likely to aggravate social sickness still further. And to increase social sickness is a serious medical (and biological) matter in two ways: (*a*) the psychological health of the members of the sick society, which was already deteriorating, will deteriorate still more; (*b*) the health of the containing community both regional and national will be impaired not only socially as a result of infection from the sick group but if the "social goods" are material ones and production falls and falls, the physical health of the containing community may become affected also.

An obvious case of social sickness in an occupational group is that of the mining community discussed in the preceding chapter. How serious has been, and may still be, its implications for the health of the nation—and of the miner—is known to all. But there are many others which so far have not been adequately examined and therefore remain undiagnosed. For example the building occupational group of bricklayers. Never was a time when their particular brand of social goods was in

higher demand by the community and never was their output so poor. There is no reason to believe that this has been associated with a decline in physical health. Although fewer hours per week are being worked now than sixty years ago, the average output per man per hour is very considerably less in spite of the shorter time on duty. (Neither hygiene nor industrial psychology can "explain" these findings which, however, become understandable in terms of psychosocial medicine.) Evidently this group has lost its sense of social purpose, is socially sick and its members psychologically ill—and likely, therefore, to provide explanations of their behavior which are highly rationalized.

Then again in a different occupational sphere we are reminded of the nursing profession whose "social goods" though less crudely material than those of coal and houses are insufficient to satisfy the requirements of the national community. We therefore ask ourselves the question: Is the failure of this group to attract recruits and maintain its members merely the result of its becoming repellent in a relative way as an effect of the great increase in the number of occupations now open to women?—or is the group truly socially sick, that is, has it lost its sense of "ideal" social purpose? This is possible, for from the ontogenetic viewpoint nursing is a development of mothering in which special bonds of affection are involved and required. But in recent years this seems to have been forgotten, perhaps partly in association with the increasing rejection of the child by the modern woman and partly with the one-sided physical outlook upon medicine that led to nurses being given training as subordinate medical technicians, to the neglect of the original and probably essential feature of their profession. We have to ask, also, how far this is due to leadership which has gradually failed to appreciate the ideal social pur-

pose of nursing, or which has become obsessively rigid, or lacking in awareness of the symptoms and nature of social sickness. Whatever the answer it is clear that improvement in the "physical conditions" of nursing cannot in themselves "improve the nursing position," as the present saying (and thinking) puts it.

Though the failure of a group to fulfill its particular social function is a useful preliminary pointer to the likelihood that it is a sick society, it is evident that without further and properly oriented enquiry we cannot determine the degree of social sickness, its nature, its causes, or the measure likely to restore social health.

Scrutiny, like charity, should, however, begin at home and it is profitable at this point to ask ourselves: What exactly is the social function of medicine, or, more properly, of the medical occupational group?

THE SOCIAL FUNCTION OF MEDICINE

The social function of medicine might be stated as: to treat sick persons, to prevent disease, to maintain health, to acquire relevant knowledge, and to advise and show others how these ends may be obtained. If we agree that this is a reasonable account of its social purpose we can now ask: Has modern medicine been successful in fulfilling its social function? In one sense the answer is assuredly yes, as may be judged by the improvement in the trends of the indices of the physical health of the population. But in another sense the answer is just as assuredly no, as may be judged by the high levels and rising trends of the indices of the psychosocial disorders, including those of proximate interest to medicine, such as biological infertility, psychosomatic affections, incapacity for work, and

poor output. It would appear, therefore, that medicine has been failing to fulfill its social function in important respects. Some of the reasons for this become clearer when we turn to the history of medicine.

CURATIVE AND INDIVIDUAL MEDICINE

Since the beginning of recorded history medicine has been concerned with the treatment, care, and cure of sick individuals. The relation between patient and doctor was essentially a personal, even possessive, one ("My patient," "My doctor"). Like a compact between lovers it was both secret and sacred. This was recognized in the Hippocratic Oath—still administered to graduates before their names are enrolled in the Medical Register—by which a vow is taken not to divulge any of the confidences imparted by the patient. This relationship remained undisturbed up till the end of the nineteenth century, for until then the doctor had been essentially a "one-man band," combining in himself nearly all medical activities apart from those of surgery and nursing. But with the development of the physical sciences and their increasing application to medicine the profession began to be fragmented into general practitioners and "specialists," who in turn were fragmented in accordance with the particular part or function of the body in which they specialized. In this way the exclusiveness of the personal relationship between patient and doctor began to be interrupted as the patient became increasingly viewed less as a person and more as a container of parts that had gone wrong. This tendency was further accelerated in Britain by the National Health Insurance Act of 1912, whereby practitioners agreed to provide certificates giving the "reason" for the illness of their patients to the financial agents concerned. (Shade of Hippocrates, how shadowy thine Oath!)

As the mechanistic outlook on illness grew and as specialism developed and as administrative machinery expanded on its own momentum it was decided in 1945 to nationalize the medical profession and to treat it, in terms of big business, as a branch of technology—which it had in fact become. And so the family doctor of the nineteenth century became a Technical Officer/Medicine/Nonspecialist in the service of the State (“*That doctor,*” “*That case*”). It was, however, agreed that the technical officers should work in groups or teams—a proposal more significant than was realized, for it marked the end of individual medicine, which put the emphasis on cure, and the beginning of group-practice medicine, which puts the emphasis on prevention.

PREVENTIVE AND GROUP MEDICINE

Preventive medicine is perhaps as ancient as individual medicine but because it dealt with societies it was a function of the community leaders either religious or political or both. Thus Moses is said to have been responsible for the codes of physical health to be found in the book of Leviticus as well as for the Ten Commandments which are codes of psychosocial health. The latter, however, being of a “spiritual” nature, were said to have been delivered to Moses by Jehovah himself. In more modern times preventive medicine in its physical aspects became the concern of central and local government, but in its psychosocial aspects became largely neglected during the centuries that followed the Reformation. The incorporation of doctors into the service of the state to advise upon and deal with problems of “population health” did not take place until near the middle of the nineteenth century, when they were asked to assist in combating the tragic medical consequences of the industrial revolution (increasing overcrowding as-

sociated with the influx into towns, dirt, squalor, lack of sanitation, long working hours, etc.) which had brought about a great increase in mortality (especially from infectious diseases), low expectation of life, and much physical impairment. Interestingly enough it was laymen and not doctors, immersed as they were in curative medicine and in personal relationships with their patients, who drew attention to the need for medicine to include the "public health" within its province. Since that time preventive medicine has become a distinct branch of knowledge—or specialism—in its own right.

Note on the development of preventive medicine. The appearance of the new technique of bacteriology toward the end of the nineteenth century and its subsequent development provided insight into why many diseases happened or broke out as and when they did. The discovery and application of appropriate techniques of investigation, the introduction of vital statistics, and the development of sounder etiological and epidemiological concepts all served to provide an ever-improving guidance for preventive action in terms of demonstrable causes. In the twentieth century, advances in biochemistry and its applications to animals and human beings added a new province to preventive medicine in the form of nutrition. Before the outbreak of the war 1914-18 it had been established that many deficiency diseases could be prevented, and before the outbreak of the war 1939-45 it was known not only that the provision of milk and meals at school added to the height, weight, and vigor of schoolchildren but also that proper feeding of pregnant mothers, both animal and human, reduced the incidence of miscarriages, premature births, and even deaths in early infancy. This new knowledge was demonstrated in practice on a national scale by the experiment imposed upon Britain by the rigidly controlled rationing of food during the war years. Before 1939, also, there was a spreading but somewhat vague realization that "social" factors of the environment were somehow important as causes of inefficiency, unhappiness, and illness, and for the first time the term "social medicine" began to become cur-

rent. At first it was mainly used as a synonym for preventive medicine in its application of hygiene, nutrition, and industrial medicine. But with the growing appreciation of the value of the psychological approach it has now become evident that preventive medicine must take account of the techniques and concepts of psychological, psychosomatic, and psychosocial medicine. In short, preventive or group medicine consists not only of "population medicine" but of "social medicine" in its proper sense, which is that of *psychosocial medicine*.

From this short historical survey we see how medicine, reflecting the social disintegration of the period, became disintegrated also, not only in outlook but also in function by the development of specialisms and specialists who concentrated solely on the "case" and the "population," to the neglect of the "person" and the "society." In other words there had been an ever-growing omission to take adequate account of the problem of the "life" and the "lives." So long as a community remains reasonably socially healthy this omission may not be important, but once it becomes a sick society the omission becomes very important indeed. The new knowledge provided by psychological, psychosomatic, and psychosocial medicine helps, however, to show how *disintegrated medicine* may become *integrated medicine* both in thought and in function. Some parts of this guidance have already been mentioned from time to time in previous chapters, but it is convenient to re-note them here with the addition of others.

THE PREVENTION OF RECURRENCES AND OF CHRONICITY
—GROUP-PRACTICE MEDICINE

An appreciation of the prevalence, significance, and nature of the psychosomatic affections is still far from general, yet it is now well enough established that the treatment of these dis-

orders in terms of disrupted bodily mechanism alone can, at its best, do little to prevent the recurrence of illness either in the same form or in that of an associated affection. The doctor who sees a psychosomatic affection, either functional or organic, purely as a disease and who treats it solely in terms of mechanism and not also as an expression of a "life" may also thereby act as a positive pathogenic agent. Similarly, clinics and institutions that take no account of psychological and social considerations and that provide indiscriminate mechanized treatment of these complaints—not least notably of the very prevalent "rheumatism," a loose term that covers many different diseases not a few of which are psychosomatic affections—can rightly be regarded as factories for the mass production of invalidism. An adequate account of the subject of "Psychosomatic Medicine and the Sick Person" would, however, require a separate book whose alternative title might suitably be: "The Gentle Art of Refraining from Creating Invalidism."

The application of the psychosomatic and psychosocial approach to illness is most fruitful when the patient first reports sick, and not after months or years of routine mechanistic treatment. This consideration restores the pivotal curative and preventive importance of the general practitioner in his role of family doctor, for it is he who sees the patient first and has an opportunity of regarding him as a person, of assessing his "personality type," and of appreciating him in terms of a functional relationship to at least one important etiological social circle—the domestic. Indeed the knowledge, perceptions, and actions of the doctor who is the first to see a patient suffering from a psychosomatic affection are most important determinants of the "outcome of the case." But the practice of psychosomatic medicine takes time, and its application must be

limited if a doctor is swamped with patients, as in many industrial practices. Harassed, pressed for time, writing prescriptions, signing forms and certificates, and so on, all he can achieve is the picking out of the more obviously ill "organic" cases, the appeasement of the nonserious cases, and the reference to a clinic or hospital of the doubtful or obscure ones for a specialist's opinion. This impossible setting for family practice may in time be replaced by group practice, with its team of social workers, district nurses, clerks, and representatives of the Ministry of Labor and Welfare Departments—even of industry. In this way each case of illness becomes a problem for the medical group—no longer purely medical but sociomedical. (This picture is, however, unlikely to be realized if the social health of the nation continues declining, with more and more vague sickness, more and more debility and falling output, increasingly aging population, and the further failure of new lives to enter the community.)

Another important consideration interfering with the practice of psychosomatic medicine would be an imposed requirement to keep voluminous records, as distinguished from basic identification data; for this means that the time of the doctor is consumed in performing as a ledger-clerk and the patient is deprived of the treatment he needs most. The full recording which is needed with respect to certain social functions of medicine—such as in the training of students and for the purposes of certain researches—is a different business. But a blind insistence on "full records of every person from birth to death" is a life-destroying obsession unrelated to reality. In this connection it is interesting to note how the most elaborate hospital records, when they refer to patients suffering from psychosomatic affections, usually contain every conceivable detail except the important relevant facts dealing with "per-

sonality type," intelligence, emotional upsets (bereavement, domestic troubles, occupational difficulties), and an indication of the social groups and circles the patient has lived through.

It would seem that the group practitioner of the future must be acquainted not only with psychosomatic medicine but also with psychosocial medicine. He must be a biologist aware that the illnesses of his patients are the resultants of their interaction not only with environment in its physical, chemical, and microorganic aspects but also in its psychosocial aspects, that is, of interaction with the many social circles through which they have lived and within which they may still be living. And as he sees things this way he will realize how a patient with a psychosomatic affection not only reflects the social health of his groups but also *reacts back upon them*, serving as a potential focus for spreading further disintegration in them.

THE PREVENTION OF OCCURRENCES—CENTRALIZED GROUP MEDICINE

The "sick society" provides a new challenge to centralized preventive medicine, for its problems cannot be solved in terms of population medicine—only of psychosocial medicine. A first requirement is the collection and collation of statistical data referring to the incidence of the psychosocial disorders, which include the psychosomatic affections. With the aid of these it becomes possible to distinguish those social groups which are clearly "sick societies" in the same way as sick populations are distinguished from the returns of infectious diseases and the indices of malnutrition. Where the incidence of social sickness is seen to be severe or to prevail in epidemic form this would be a signal to initiate special enquiries to determine its etiology and the epidemiological modes of spread, with a view

to obtaining guidance for action, that is, for social therapeutics.

One index of social sickness of special concern to financial insurance interests is a high or rising rate of medically certified "incapacity for work" not attributable to a deterioration in the physical, chemical, and microorganic aspects of environment. The knowledge gained by psychosocial medicine shows how the illness it reflects cannot be prevented by "tightening up" medical certification by an increase of administrative machinery for "checking" it. Such a procedure may admittedly reduce temporarily the numbers of individuals continuing to receive medical certificates, but if the "axe" is applied vigorously the hostility and resentment inevitably provoked can only have the effect of precipitating a recurrence and an aggravation of the "condition" or its substitution by associated affections. The ultimate result, therefore, of attempting to control high sickness rates by indiscriminate "cutting members off the register" is to bring about a still greater volume of sickness, which in turn swells the "register" still further and demands still greater financial payments.¹

Attempted reduction of high sickness rates by administrative artifice is clearly impotent to affect the trends of a social process that is essentially biological in nature—just as impotent as an attempt would be to raise the falling birth rate by artificially increasing the number of birth certificates. Moreover a high rate of medically certified "incapacity for work" is only one of the indices of social sickness and is accompanied by high

¹ It is an interesting experiment to inform a case of industrial dermatitis in receipt of compensation, whose skin lesion is largely psychosomatically determined, that he is a malingerer or lead swinger, and then see what happens to his skin condition a few days later. As the saying goes, it must be seen to be believed!

levels in the rates of other psychosocial disorders, such as absenteeism, low output, "escapism," and various forms of destructive or antisocial behavior. It follows, therefore, that high rates of incapacity for work from any district or occupational group must be taken to signify serious social sickness—until enquiry shall prove the contrary.

The increased incidence of psychosomatic affections—not only anxiety states but also gastric disorders, fibrositis and perhaps depressions—that has progressively invaded the younger age groups (*see* p. 67) directs the attention of preventive medicine to those factors of infancy likely to predispose specially to these diseases. Child welfare by limiting itself to nutrition and "hygiene" has neglected psychosomatic medicine and has thereby served to contribute to an increase in parental anxiety and has not been without its effects in acting as a factor in disturbing the maternal medium, thus inducing an undue tendency to psychophysiological dysfunction.

The problem of the declining birth rate is revealed by psychosocial medicine as a manifestation of a disintegrating society, the sick family group being only one of the many sick social groups contained within the larger community which is also socially sick.

Another important problem confronting centralized preventive medicine is that of the chronic diseases, so devitalizing to communal health. As the proportion of the population at the older ages becomes greater—an effect of the declining birth rate and of the "improving expectation of life"—the incidence of chronic disease, other things being equal, is likely to increase still further. But if the "other things" are not equal that is, if the social health of the community continues to deteriorate, then their incidence will become even greater and will more and more affect the younger age groups also. A first

step toward combating the problem of chronic sickness is, therefore, the application of the psychosomatic approach in group-practice prevention and the undertaking of investigation and action in terms of psychosocial medicine in centralized prevention.

THE NEW MEDICINE

The reorientation in medicine implied in the new outlook is not "simply psychiatry" nor is it "mental health"—a term that is a hangover from the ancient tag of "a healthy mind in a healthy body" which, because of the faulty medical logic upon which it was based, could take us nowhere. Rather it is *integrated medicine*, which speaks of "a healthy person in a healthy society," a phrase which, because it is based on a sounder logic, will certainly take us somewhere.

How is the integration of medicine, and of the medical profession, to be achieved? Clearly there is need for a more general awareness that medicine has failed to make its proper social contribution to the common weal with respect to the psychosocial disorders, several of which, at least, are obviously within its sphere. Because of this it has been unable to appreciate the serious biological results of social sickness, and consequently has been impotent to warn the community how grave is the state of its biological or "total" health. The first need, then, is for awareness; awareness of what has happened and how it has happened.

Next there is the need to put over the new medicine so that students and graduates may be given an adequate insight into the theoretical and practical implications of integrated medicine. This requires that as a preliminary they be instructed in medical logic, including those principles of etiology which provide a synoptic view of the various functions of the medical

profession and reveal more clearly the social purposes of medicine, both theoretical and practical. This instruction is very necessary, since experience shows that much of the resistance to the new medicine is due to the complete absence in many medical men of any real understanding of the logic of medicine.

But this need also requires that students and graduates receive both clinical and theoretical teaching in psychosomatic medicine and in psychosocial medicine. (This seems very obvious when account is taken of the altered nature of the complaints of patients in attendance at practitioners' consulting rooms that has resulted from the improvement in "physical health" and the decline in "psychological health." Indeed so great has been the change in the nature of this "clinical material" that nowadays probably the majority of the adult patients attending the doctor with a fresh complaint are suffering from symptoms or illnesses which can only be understood and treated in terms of the new medicine.) When and as group practice develops, the need for the teaching of integrated medicine will become even more obvious for practitioners and specialists alike.

In the absence of these requirements, members of the medical profession—tutored, thinking, and acting in terms of the old and disintegrated medicine—must continue, quite unwittingly, to serve as foci of spread of social disintegration within the community, instead of as foci of social reintegration. An important objective sign of the reintegration of medicine would be change of leadership in alignment with its ideal social purpose both in thought (cultural leadership) and in function (medical political leadership) to replace the old leadership of sectionalized specialisms and specialists.

FURTHER INSIGHTS IN PSYCHOSOCIAL MEDICINE

The description of medicine and the medical profession viewed from the standpoint of psychosocial medicine provides us with two further insights: (1) Social sickness is manifested not only by disintegrated modes of group functioning but also by disintegrated modes of group "seeing and thinking." (2) Recovery from failure in social function must be largely achieved by, and within, the affected group itself.

A corollary of these considerations is that the recovery of the social health of a group (whether professional, industrial, educational, religious, or domestic) is related to its developing a different way of "seeing and thinking." In other words, before its social dysfunctioning becomes alleviated its members and leaders must alter their "relations to objects."

Clearly no one single group is by itself causal of the social sickness of its containing community, for each group overlaps, interpenetrates, and infects other groups. Yet in so far as the members and leaders of a group become aware of their ideal social function and act in terms of that awareness, to that extent they alleviate the disintegration of the larger community.

A further question now arises: What is the social function of a containing community? When we recall that the ideal social purposes of a healthy society are expressed in its leaders we can reframe the question by asking: What are the ideal social functions of the leadership and the leaders of a containing community—whether village, city, or nation? In other words: What is the social function of politics and of politicians?

THE SOCIAL FUNCTION OF POLITICS

Before answering the question "What is the social function of politics?" we have to distinguish between the "state," which is connected with "discipline," and the "government," which is connected with "leadership."

The "state" has a triple reference. Firstly it refers to the codified rules, regulations, laws, and penalties once consciously formulated by the political and administrative leaders of a community (i.e., by government past and present) for the purpose of assisting the cohesion of the community so that it can fulfill its social purpose. (*Ideally* the social purpose of a community is to survive and be "totally" healthy, i.e., healthy whether regarded as a population or as a society.) Secondly the "state" refers to the functionaries or officials who in fulfillment of their office think, see, and act in terms of the codified discipline. Thirdly the "state" refers to the geographical (political) boundaries wherein the discipline takes effect.

What we call the state is, therefore, a product or expression of society. In itself it is impersonal and devoid of awareness. Considered statically it appears as a framework; considered dynamically it appears as a machine whose functionaries are mechanical automata. It might even be considered as a blind, compulsive, and self-perpetuating force which can arrest events, kill persons, and destroy life. One thing the state cannot do—it cannot create. Creation, whether of goods that are material or goods that are spiritual, is a function of persons living in society, and the degree of their creativity is determined by the social health of the community in which they live. But, as we have already noted, in the absence of "discipline," that is, of the state, no society can be socially healthy

and no society can therefore be creative. The leaders of a political community, the politicians who control the government (as well as administration, whether local or central), have a crucial responsibility in ensuring on the one hand that the state does not unduly hamper or arrest creativity (thereby impairing health both physically and socially) and on the other hand that the state, however changed and modified, is not unduly weakened or destroyed. This, then, is the crux of politics—how to make appropriate variations in the “state” to ensure the maximum biosocial health of society.

Biopolitics. We are now in a position to give a studied answer to the question: What is the social function of politics? It is to be aware of the biological implications of the state and thus consciously ensure the survival and secure the health not only of the population (this involves problems relating to the supply and distribution of material goods) but also of the society (this involves problems relating to the supply and distribution of adequate “spiritual” goods, in whose absence the community becomes a sick society, failing even to supply the basic material goods necessary for the physical health of its population).

By drawing attention to the sick society psychosocial medicine makes a definite contribution to politics. Also, by showing how the degree and kind of sickness can be adjudged by the indices of social health (*see* p. 176), it enables a government to gauge the biological and medical—which are also the political—healthiness or unhealthiness of courses of action in terms of the ideal social function of politics, namely the *common health* without which there may be no true *common wealth*. The “state” which in Britain collects so many statistics has not yet begun to collate those of social health which are so essential to the social functions of politics. In lack of them it is

difficult to see how politicians can be, as they should be "Men of deep art in life development"—to use the phrase of Thomas Hardy in the Fore-scene to *The Dynasts*. Without knowledge of social health or of what is happening to it, leadership cannot be fully conscious of its actions and of their biological effects. Measures must therefore be passed either in partial ignorance (as in terms of a one-sided view of the public health as purely "physical," related only to the supply and distribution of material goods), or in passionate blindness in terms of emotionalized rationalizations and isms. All isms are sectionalisms, and leadership of a containing community in terms of sectionalism must inevitably lead to a further decline in social health characterized by social fragmentation in the form of class or civil war.

If politicians and administrators, at a time when the social health of the community is poor, fail to recognize the significance of biopolitics, one or another of several consequences follow: (1) The political leaders, the government, may tend to counteract the symptoms of social ill-health (e.g. strikes, falling output, riots, high sickness rates, etc.) by tightening up discipline, that is, by increasing the powers of the state, being unaware that by such measures alone social disintegration will proceed still further. (2) Measures may be passed in terms of some emotionalized doctrines in the unscientific belief that this represents a key to social progress, but because it is unscientific it can lead only to further social regress. (3) Political leaders may be tempted to "blame" either an in-group or an out-group (i.e., another and exterior political community) and this may lead to either civil or international war. This is the phenomenon known as the paranoid projection.

Note on war. It is a fact that a person may develop paranoia and proceed to assault his neighbors so that it is necessary for

the state to intervene to protect the lieges. Correspondingly it is a fact that a government may become "paranoid." For this reason the governments of neighboring countries require their states to maintain armed forces so that they may be in a position to fulfill the social function of politics which is to ensure the common health and common survival of the community.

POLITICAL QUESTIONS AFFECTING THE COMMON
SOCIAL HEALTH

It is interesting to note that at a time when political leadership decided that the state was to regulate the medical profession (and thereby alter medicine in its cultural aspects also) medicine in the form of psychosocial medicine emphasized that the ideal function of politics was to ensure the social as well as the physical health. Some illustrations may be given of political problems viewed in this way.

Granted that a service state (*see* p. 182) may improve the material lot of the people and thereby their "physical health," such an arrangement does not necessarily dispose of the problem of obsessional trends and therefore does not necessarily improve the "social health." Individuals who in a market economy were able to live out these trends in such manifestations as hoarding, gaining, accumulating and building up many resources may readily find in the necessarily enlarged bureaucracy of a service state substitutive liberation for these trends in such manifestations as methodical power seeking, perfectionistic planning and regulating other persons in terms of systems. And as obsessionals cannot stand the impediment of the free play of their personality trends, being rigidly unadaptable, they experience as upsetting any evidence of spontaneous vitality and creativity in persons who fall within the ambit of their official authority. Accordingly they feel such

persons as "dangerous" and "unsafe," and endeavor to suppress or stultify them, thereby reducing the total creativity and bringing about further deterioration in social health.

A rough and ready test of the obsessional personality, whose social virtues may be considerable but whose qualities unfit him for political leadership, is the prevalence and nature of his psychosomatic affections. "By the *recurrence* of their psychosomatic illnesses ye shall know them"—their rheumatisms, skin troubles, stomachs, and so on.

This problem of obsessional trends can probably only be solved through another problem in which politics is concerned—that of education, whose social function is to assist in the integrated development of the individual and thereby contribute to the development of the integrated community. One important step toward this end would be to provide students and teachers with a conscious awareness of the implications of such subjects as ontogenesis (the study of the "path of life"), psychosocial medicine, biopolitics, and even elementary logic.

Another question concerns the crux of politics, namely the extent to which regimentation and control by the state are compatible with social health. At a time of crisis, danger, and hardship, disciplinary limitations which narrow the field of "freedom" of members of a group are readily accepted if the leadership is in accordance with the social purpose of survival, but if the discipline is maintained for the sake of prejudice or rationalized thinking and not in fulfillment of the true social function of politics, it may be a potent factor in preventing spontaneous reintegration.

Allied to the question of regulation is that of ever growing centralized control. How far is centralization compatible with the social health of a group which, like the personal health of

the individual, is maintained largely by local autonomy? For example, are the stirrings of a desire for regional social fragmentation in Wales and Scotland (*see* p. 169) essentially expressions of an attempt at self-cure from serious social sickness? To mitigate the total social sickness of Britain may it not be necessary to decentralize, so that contained communities as socially ill as Wales and Scotland by being given their own problems to solve may have a better chance of achieving their own reintegration which if accomplished would improve the total social health of the larger containing national community of Britain?

Associated with the problems of regulation, centralization, and bureaucracy is the problem of how a service state—and that includes the civil service—can provide adequate opportunities of expression to the creative artist or to the person with unusual talents, the nature of which cannot readily be categorized or card-indexed. From the standpoint of social health these people are among the most potentially valuable members of the community. Perhaps they are experienced as unsafe or dangerous partly because of a very simple reason: every conceivable occupation is categorized except that of the creative artist whether in science or in the arts. Would the problem not be solved by providing for them a special category enabling them to be given opportunities whereby they can develop their special endowments in such a way that both order and creative disorder could become reconciled?

A series of political problems relates to the position of women in society. During the last half century more and more women have tended to enter commerce, industry, and the professions. But these activities militate against the chances, opportunities, and desires for child bearing and in themselves lead to a further fall in the birth rate which further exacer-

bates social disintegration and tends toward community self-destruction. Those extended activities of women also interfere more and more with the rearing of the young child by its mother so that it is denied the "good mothering" and the family life so necessary for psychological health in adulthood. In this absence, their psychosomatic affections increase and social sickness becomes more severe, involving increasingly the younger age groups. Clearly the problem of women in society is related both to the birth rate and to the incidence of psychosomatic affections and is therefore a problem of primary importance to politics, whose social function is to ensure the survival and to secure the health of the community regarded not only as a population but also as a society.

A further point of biopolitical importance relating to the falling birth rate concerns the growing infertility of married couples whose "innate intelligence" is above the average. Since inborn intelligence is an inherited characteristic the decline in the number of their offspring—which has proceeded to an extent far greater than among married couples whose intelligence is well below average—leads to a progressive deterioration in the average intelligence of the population as a whole. Recent statistical studies in Britain have shown that if the present course of things continues, in about fifty years' time the proportion of mental defectives will have doubled; and that in seventy years' time the intelligence quotient of children aged twelve will be equivalent only to those of children of today aged eleven. There is no need to question the validity of these statistical investigations, since their findings are in consonance with those from all other departments of knowledge bearing on this subject—even when due account is given to the terrible loss by death of a large proportion of the

more intelligent young adults especially during World War I. The repercussions of the progressive disappearance from the community of persons with overaverage intelligence cannot fail to affect the initiative, ability, and creativeness of the British community.

One final question may be asked: What is the healthiest method of obtaining political leaders who will be "men of deep art in life development" so that the social function of politics may best be fulfilled? Is it by a one-party system, which seemingly implies permanent leadership and the formation of a coterie of leaders and thereby must ultimately become sectional and even paranoid? Or is it by a two-party system, which is associated with changes of leadership, the absence of a permanent coterie, and the opportunity of the community to relieve its feelings of aggression against the discipline of the state by "deading" one set of leaders and selecting another? Or is it by a no-party system, in which political social groups may select as potential leaders those members whom they experience as healthily integrated persons and who therefore, having integrity, are healthily integrated to society also? (This would imply a double polling, the first to obtain a primary list and the second to vote upon the first two or three at the head of the primary poll.) Or would the no-party system imply a no-leadership chaos? Or does the number of parties not matter so much as the proper selection of candidates for political posts? Probably some guidance as to the proper answer might be obtained from a study of history—for psychosocial medicine provides politics with a scientific approach to these important matters—and also from experiments in political leadership selection.

POLITICS AND REINTEGRATION

The recovery of a political group, a town, a city or a nation, that is socially sick depends not only on the reintegration of its contained groups (professional, industrial, educational, religious, or domestic) but also on its reintegration as a containing community. This is clearly a function of communal leadership or government. Social groups of politicians and of administrators, having a special responsibility in the problem of social reintegration, share, therefore, with all other socially sick groups in the task of seeking and developing a way of "seeing, thinking, and acting" in terms of the new knowledge of psychosocial medicine.

THE DARK BACKGROUND AND THE VISION

It is uncomfortable to become aware that we live in a sick society and to appreciate that its social sickness is a reflection of our own psychological sickness with its faulty attitudes which are not only emotional but also intellectual. Even more disturbing is the knowledge that social sickness represents a deep-seated biological process tending toward progressive devitalization and even genetic extinction. Indeed, so upsetting are these realizations that many people find them intolerable and either refuse to believe them or fail to understand them, or else, if they do understand them, they mitigate their upsetting impact by partially rationalizing them away. For example, some will respond by saying that this is the sort of thing to be expected in an age of transition when social patterns are so rapidly breaking down everywhere and every community is, as it were, being "invaded from without" (*see pp. 150, 175, 191*). Others quote the case of past civilizations

such as those of Babylon, Athens, and Rome and point out that it is in accordance with the course of things, or even in accordance with some special "laws of history," that there should be a "decline of the West." After all, did not these communities in the period of their declension also show deterioration in the indices of social health comparable to those lately found in Western civilized countries? Such rationalizations, like most rationalizations, are partially valid, but the problem of today is historically unusual, even different—in quality as well as in quantity—as a result of modern methods of communication and transport which have telescoped regional man into world man or mankind. And as far as present knowledge goes, we do not know whether the present biological trend toward progressive devitalization and genetic extinction is or is not reversible.

What we do know is that only in so far as human beings can be persuaded to face consciously the problem of the sick society (which is both within and without us) is the trend toward devitalization, even toward genetic extinction (either gradual, as in ever increasing infertility, or abrupt, as in atomic war), likely to be checked. The practical problem therefore is: How can individuals become aware of the situation? The answer would seem to be that everyone who becomes cognizant of and moved by the issues involved must introduce the subject to the groups to which he belongs, asking such questions as: What is the social function of this group? is it fulfilling its social function? If not, why? And as we re-view and re-think these problems we will become aware how mere questioning and thinking alone can be of little avail unless we also act in terms of what we have learned and felt. How puny and even futile these sentences sound! And indeed they would be merely platitudes if they were unrelated to positive knowledge. Already, however, there does

exist scientific medical knowledge of the sick society and appreciation of what it means to the individuals contained within it. This knowledge, imperfect and inadequate as it is, if apprehended and followed up could become an instrument for saving man from his slide toward chaos. If this sounds like a gospel, well and good, it is a gospel. For the new medicine implies a new outlook and a new vision which are not only intellectual but "spiritual" in that they concern life and the regeneration of life.

It is interesting to recall how a new vision spreads. A few individuals, perhaps scattered in space and without intercommunication, become inspired with the significance of a new vision and its "message." They infect others and thus act as foci of spread and of attraction. Gradually a new social "movement" appears, beginning with small circles whose members have "enthusiasm." As the circles enlarge they come to intersect one another and coalesce, so that rapidly or slowly a social re-formation and re-naissance takes place.

If the new medicine could indeed be experienced as a vision the trend toward social disintegration would cease, and a healthy society emerge whose members were bonded by affection and a common purpose in creation, not thinking in terms of isms and not isolated by self-seeking and by hate turned against themselves, their neighbors, and their out-groups.

If social disintegration today differs from its previous historical occurrences in that man is now no longer regional man but is becoming world man, so also does the new medical gospel differ from previous gospels (though in many respects it is in consonance with their teachings) in that it comes in the context of science.

Science is a method whereby man consciously alters his re-

lations to nature. By perceiving events differently and by thinking about them differently he comes to act differently toward them. In other words by changing his attitudes and viewpoints he simultaneously alters both his relation to events and their relation to him. Until recently science was concerned mainly with the physical aspects of nature, and its application in this respect altered both man and nature so profoundly that certain physical scientists—and even biologists who should have known better—began to announce that man had now assumed control of his destiny. But physical scientists, being specialists, mistook their particular branch of science for SCIENCE instead of the partial science that it was. Like nearly all specialists they were dead to life. Had they been alive to life they would have seen that what was really happening was that man's destiny far from being controlled had got more and more out of hand. Fortunately science is now becoming more SCIENTIFIC by beginning to look at nature not only in its physical aspects but also in its "spiritual" aspects. In so far as this happens we obtain a wider and truer awareness of nature, and our thoughts, feelings, and actions become altered to be more in consonance with the nature of NATURE (*see also* pp. 180–181).

The new medicine provides us not only with a new perspective but gives us a better sense of proportion. For example, what shall it profit a community if it adds three inches to the average stature of its members and regards this as social progress when in reality the community is in a state of social regress? In other words it is neither sense nor science to concentrate our thoughts and endeavors on the physical aspects of nature to the neglect of its spiritual or psychological aspects, when it is by the comprehension of these alone that man can consciously save himself from further social catastrophe and even destruction. First things should surely come first.

But in Britain (at the time I write this) the disciplines of psychosomatic and psychosocial medicine come last—if indeed they may be said to have come at all. In no medical school, so far as I know, is instruction given in them, and no case-demonstration in terms of their viewpoints is made to students. Nor in any university are these subjects recognized *as* subjects. And the few individual doctors who concern themselves with research in them do so in working conditions that are straitened, starved, and difficult. Things are better in this respect in the United States whose government in 1946 introduced the Mental Health Act whereby large grants became available for the purpose of advancing psychological medicine in its aspects of teaching, training, research and practical application—at least they look better superficially. But the expression “Mental Health,” because it is founded on a faulty medical logic (*see* pages 209, 229–230), must persistently tend to obscure the real nature of the problem, which is social disintegration. And this can properly be understood (and ultimately treated) only by adopting the outlook, methods, terms, and concepts of Psychosocial Medicine.

CHAPTER 12

Conclusion

IN CONCLUSION, this account of psychosomatic medicine and the sick society shows how social sickness may be recognized and measured, and indicates its implications. These are of high importance, and concern not only medicine but many departments of human thought and activity. More specifically they concern the "life" both of man and of mankind.

As social sickness is a *disease* the basic observations upon it are appropriately made in terms of medicine and arranged under the familiar medical categories of symptoms, diagnosis, pathology, etiology, epidemiology, treatment, and prevention. In this way the knowledge gained attains a form communicable to and understandable by others. But much further field investigation needs to be done, before social therapeutics becomes a subject of medicine in its own right.

The aim of this work is essentially practical, that is, it is a contribution to social synthesis and thereby, also, to psychosynthesis, for the one is the reflection of the other. But without a "mental fight"—intellectual, emotional, and spiritual—these matters cannot be grasped, and the sword that might have been used will remain "sleeping in the hand."

Appendix

Notes to Chapter 1.—Common Examples of Confused Etiological Discourse

Notes to Chapter 2.—The “Bodily Mechanism of Emotion”

Notes to Chapter 5.—The Significance of a Psychosomatic Illness

Notes to Chapter 9.—Social Health and the United States

Notes to Chapter 10.—The Incidence of Psychosomatic Affections in Underground Miners

NOTES TO CHAPTER 1

COMMON EXAMPLES OF CONFUSED ETIOLOGICAL DISCOURSE

Confusion of the fields of discourse. Demonstrations of improper thinking are frequent in medical writings. Some writers concentrate solely on the third field of etiological discourse, namely that of mechanism. For example, we may read that "the cause of rheumatism is imbalance of the endocrine and autonomic systems which brings about changes in vascularity of the tissues which in turn causes errors in the metabolism of the joints." To make such inferences is, of course, legitimate provided the writer recognizes that they represent only a partial aspect of cause, namely that of mechanism. What is not legitimate, however, is to *compare* the findings in two of the fields of discourse, as for example, "In rheumatism the metabolic factor is more important than the infective factor." This is definitely confused. Findings in two fields of discourse can be *related* (e.g. an individual may react to microorganic invasion by disorders of metabolism), but it is not logical to *compare* or *contrast* them. A sentence analogous to that quoted would be: "In sunburn the deposition of pigment is more important than the actinic rays." Sometimes confusion of thought would appear to be almost complete as in this list of "nonspecific causes of rheumatism" which reads: "dietary, environmental, nasal, toxic, psychic, endocrine, physical, chemical, and mechanical." This is a strange brew and is analogous to making a statement about, let us say, street accidents to the effect that "the specific cause is motor-cars" but "nonspecific causes are dietary, cutaneous, alcoholic, mechanical, osseous, and bacteriological." Here is another example: "Under this term (angina) may be included its spasmodic, hysterical vasomotor or syncopal, and toxic forms." This is a teaser, and its elucidation would make a pleasant parlor game until someone discovered it was insoluble.

Mind and body. Another source of obscurity is to confuse the technique of approach with the object of study. A common ex-

ample is the mysterious phrase "mind and body." This seems to indicate that an individual is composed of two distinct and contrasted entities—a mind entity and a body entity. If the phrase has any meaning it is this: the individual may be studied by a psychological approach and the individual may be studied by a structural or physical approach. It is our techniques or methods of investigation which are diverse and multiple—not the individual, who is a unity.

Some years ago various physicists provided the public with accounts of the difficulties in "thinking about thinking" in science. One of these concluded in his ultimate ponderings upon light that God, previously held to be a great architect, "now begins to appear as a pure mathematician." Certain critics, however, took him to task and pointed out that he had confused the object studied with the method of approach, and that it was he, and not necessarily God, who was the "pure mathematician." In other words, the answers we receive are a reflection or echo of the approach we employ. This has been most memorably expressed in the words: "With what measure ye meet, it will be measured to you again"—a statement which refers not only to emotional relationships but also to intellectual ones whether in the form of perceptions or conceptions.

Functional and organic. The words "functional" and "organic" suggest that illness may be divided into two distinct kinds, and much has been written on this faulty premise. For example, it has been stated that if an unorthodox healer cures a patient, the illness must have been functional and, presumably, not the concern of the scientific medical man who deals only in true or organic illness. Again, it has been stated that the word "functional" is applicable to a morbid process which is "reversible." But what of lobar pneumonia, warts, and on occasion even lipoma? And using the organic-functional antithesis, what are we to make of the outbreak of glandular fever in a hospital ward¹ in which some of the inmates developed enlarged glands, others a temperature only, and the rest remained well—although all showed a significant increase

¹ Halcrow, J. P. A. et alii (1943), "Infectious Mononucleosis," *Brit. Med. Journal* ii, p. 443.

in the mononuclear blood count as compared with a series of controls? Were some organically ill, others functionally ill, and the rest not ill? Or did all have organic disease? Such a scholastic discussion is, however, unprofitable as the incident can be appreciated in terms of the response of a group to an invading microorganism, the individuals all being exposed but reacting in different degrees and in different ways.

A little consideration shows that the words "organic" and "functional" are merely examples of technical slang which express in convenient form the following: In certain illnesses, or in certain stages of these illnesses, a structural technique of approach (e.g. anatomical, histological) provides a positive finding—in slang terms, the illness is organic. In other illnesses the application of the structural approach provides a negative finding, whereas the application of other techniques of approach provides a positive finding—in slang terms, the illness is functional. Many writers, failing to appreciate the only meaning which can be given to these terms, seem to have imagined that by using them a fundamental etiological basis for the division of illness has been achieved.

"Psychogenic." This adjective with its obvious etiological implications is frequently employed by writers who do not define what they intend by it. Some leave the impression on the reader that the symptom or illness they are describing (e.g. rheumatism, neuritis, backache) is caused by the disturbance of a "mind entity." Others seem to use the term for cases of illness in which psychological factors of environment are demonstrably causal. Others use it as a synonym for hysteria, and still others apply it to the complaints of anxious-looking or "queer" or psychopathic persons in whom no organic changes can be detected. These divergencies of interpretation are scarcely surprising, for the word in itself is a seducement to neglect all requirements of etiological discipline. In the absence of a strict definition its continued usage can only lead to further confusions and thus render intelligent communication impossible.

NOTES TO CHAPTER 2

THE "BODILY MECHANISM OF EMOTION"

The everyday clinical finding that certain forms of bodily dysfunction and even of organic disease may occur in certain persons as an apparent response to emotionally upsetting events is understandable both physiologically and anatomically.

From the physiological standpoint a psychosomatic affection is mechanistically "caused" by "imbalance" between the two branches of the autonomic nervous system, namely the sympathetic or adrenergic, and the parasympathetic or cholinergic. The effects of imbalance are revealed by abnormal (i.e., unduly prolonged) hyperactivity of unstriated muscle fibers such as supply the viscera (as in spastic colon), the body ducts (as in spasm of the bile duct), and the blood vessels (as in arterial hypertension)—as well as in disturbances of the glands of secretion (as in hyperchlorhydria or as in hyperhidrosis). Psychosomatic *organic* disease represents the structural end results of particular examples of prolonged or intense physiological dysfunction of this kind. The physiological concomitants of emotional response also probably include immunological and hematological effects, if we may judge not only from clinical experience but also from the statistical variations in the incidence of certain chronic diseases in which the application of a psychological approach provides information of at least partial etiological relevance (*see* Chapter Four).

The autonomic nervous system is related developmentally, anatomically, and functionally to the endocrine glands, and changes in the activity of the one are reflected in changes in the activity of the other. It seems possible, therefore, that with the probable exception of hysteria, all psychosomatic affections, whether "functional" or organic, are associated with definite abnormalities of endocrine activity; some of them dominantly so, as in exophthalmic goiter and diabetes. The autonomic nervous system in addition is related to the central nervous system which, by

virtue of its integrating functions, organizes, mediates, and distributes the vital energy that moves us (i.e., *emotion*) into its various patterns of liberation and bodily expression called "emotions."

ASSESSMENT OF METHODS OF MECHANISMIC TREATMENT

Methods of treatment of psychosomatic affections in terms of mechanism alone can properly be assessed only if account is taken of four considerations:

1. *The phasic nature of the disorders.* For example, a "cure" may coincide with the onset of a period of natural remission.

2. *Associated psychosomatic disorders.* One kind of psychosomatic affection may subside to be replaced by another associated, alternating, or sequent affection—a fact of which account must be taken in the period of "follow up."

3. *External events of emotional significance.* For example, if these are favorable, they may initiate a phase of recovery; if unfavorable, a recrudescence.

4. *The principle of the prevalence.* The following illustrates the unrelatedness of therapeutic conclusions which take no account of the prevalence:

A correspondent to a medical periodical in 1941 asked why pre-war writers on the medical treatment of peptic ulcer claimed "cures" constituting approximately 75 per cent of patients, whereas "the army was weeding out all men with ulcer." He saw only two explanations—either the figure of 75 per cent "represented over-optimism on the part of the therapists" or else "the army failed to appreciate the value of medical treatment." This apparent dilemma, however, is dissipated by the recognition of peptic ulcer as a psychosomatic disorder and by the acceptance of the PRINCIPLE OF THE PREVALENCE which indicates that the pressure of a communal environment in its psychological aspects governs the rise and fall in its incidence as well as being etiologically relevant to the onset, duration, recovery, or recrudescence of the illness in the individual.

SPIRITUAL HEALING

It seems likely that most of the "cures" of spiritual healing in its various forms are to be found in patients suffering from psychoneurotic and psychosomatic disorders or from other complaints in which the psychological approach is at least partially relevant. So far as I know, these healings have received no adequate study from the medical standpoint and it is possible that our present knowledge is inadequate to comprehend all the phenomena alleged to have been observed. The Christian Science textbook called *Science and Health* provides in its final chapter over eighty testimonials from healed persons. The nature of the material does not lend itself to a scientific analysis, but broadly speaking three impressions remain with a medical reader. The first is that all the contributors before their healing might be described correctly as "unhappy souls" or "sick personalities." The second impression is the frequency of morbid fears concerning the functioning of the eyes and the bowels. The third is that the majority of the patients appear to have been suffering from psychoneurosis (including hypochondria, depression, hysteria, and drug addiction), only a minority having "organic changes," which, if we may judge from the descriptions, were largely of a psychosomatic nature.

RESISTANCE TO THE INCORPORATION OF A PSYCHOLOGICAL APPROACH IN MEDICINE

In 1935 the late Dr. T. A. Ross,¹ whose book *The Common Neuroses* introduced so many doctors to a new world of medical practice, commenting on the little headway made by psychological medicine among the majority of clinical teachers, concluded that many people seem to be refractory to the message it brings. Historical observation, however, shows that slowness in the percolation of a new medical outlook is a natural and predictable happening. Instead of studying the data and the inferences made

¹ Ross, T. A. (1935), "The Teaching of the Neuroses to Medical Students," *Edin. Med. J.* XLII, p. 445.

from them with attention and clear thinking, individuals respond with emotion, the reactions being characterized at the one extreme by intense enthusiasm and at the other by either indifference (the "blind spot") or actual open resentment. Persons who become emotionally biased in favor of any viewpoint or theory suffer distortion of both perception and judgment—they tend to see what they want to see and infer what they want to infer. On the other hand, persons who resent the introduction of a new technique (as our grandfathers resented the bacteriological) are unable because of their emotional intrusions to see what they do not want to see or to conclude what they do not want to conclude. A good description of this state of mind is provided by Lynch.²

"The influence of emotion on reasoning is considerable when the question is one affecting either the interests of the individual or some feeling deeply rooted in his prejudices. Darwin recounts that one of his geological friends tried to assure him, against all evidence, that a certain fossil was not found in a given locality, for otherwise his friend's argument on the geology of the neighborhood would be wrong. *Four of his volumes would go for nothing.* This incident made a deep impression on Darwin's mind. It showed him that the pursuit of truth demands qualities of courage and will, not less than those of the intellect."

The outbreak of a second world war within five years of Dr. Ross's pessimistic conclusion did much to cut short the refractory period of medicine to the adoption of a psychological approach. There is now an almost general realization that a great mass of inefficiency, sickness, and incapacity can neither be understood nor prevented in terms of a medicine which ignores the application of psychological methods. This realization, however, still largely remains a vague one and this will continue until medical men have acquired the way of thinking needed to apprehend the actual situation. And that so necessary way of thinking is simply the medical discipline, or method, which under the designation of "etiology" has been so often named but so little taught.

² Lynch, A. H. (1912), *Psychology*, I, p. 363, Stephen, Swift and Co., London.

NOTES TO CHAPTER 5

THE SIGNIFICANCE OF A PSYCHOSOMATIC ILLNESS

In the detailed study of individual cases of psychosomatic affections it is interesting to draw up a psychobiogram (or "profile") in which the first column assesses year by year the degree of intensity of the personality defenses; the second column shows the times of upsetting events in the life situation; and the third gives the dates of the onset of psychosomatic disturbances. Such a triple psychobiogram reveals very clearly that in adult life the primary reaction to a frustrating environment is usually an exaggerated display of the pattern of defenses established in childhood. It shows, too, if the life situation continues to be oppressive with the passage of years, that the exaggerated operation of the defenses tends to increase until it attains such a pitch that it cannot be sustained. When this happens, and if the life situation is not alleviated, adaptation to social environment fails and the patient collapses, i.e., becomes psychosomatically ill and unfit both for love and for work. A psychosomatic affection has therefore a "meaning" or "significance" for the patient, but this, like the latent content of a dream, has to be interpreted for him. This, however, cannot be done without the appropriate investigations that reveal the findings peculiar to each case.

SUMMARY OF ONTOGENETIC THEORY IN
RELATION TO THE PSYCHOSOMATIC AFFECTIONS

1. Predisposition to psychosomatic affections is largely determined by undue frustration of vital drives (i.e., of emotional development) in which inappropriate familial influences or harmful experiences during infancy or early childhood play an important part. Undue frustrations provoke deep-seated emotional disturbances associated with distressing inner tensions.
2. The unliberated energy of frustrated drives is diverted to the construction of defenses. Originally and in essence these are devices

for avoiding pain and may be regarded as an attempt to achieve adaptation both to the disturbed inner feelings and to the external environment in its psychological aspects. By the time adult life is reached, the individual's "personality" in the sense of his trends for living, *modus vivendi*, or life style, is more or less established, the relative plasticity of the child being now replaced by the relative rigidity or toughness of the adult.

3. When in adult life events and circumstances are encountered which are experienced as continuously or intensively frustrating, the defenses become more and more exaggerated, until a point is reached when they fail as a mode of adaptation. The organism is therefore left "defenseless" against the physiological expression of the particular infantile emotional state as a counterbalance to which the overwhelmed defense had originally been devised. From the standpoint of academic medicine the phenomena of physiological dysfunction are regarded as manifestations of a functional disorder or, if there are structural end results, as a designated organic disease; whereas from the standpoint of psychosomatic medicine each different symptom complex is regarded as the somatic manifestation of a particular "emotional constellation" and any structural end results as, so to speak, by-products which in themselves have no direct emotional significance.

4. The origin of psychosomatic organic diseases (and of many vegetative neuroses) seems to be deeper both ontogenetically and somatically than hysteria. Predisposition to the latter seems to be determined by undue frustration at or after the genital phase, whereas predisposition to prolonged or intense physiological dysfunction which may lead to organic disease seems to be determined by undue frustrations at the earlier, more archaic, more physiological and less mentally and socially developed pregenital phases. For this reason it may be said that predisposition to psychosomatic organic disease is more closely woven into the structure of the organism than is predisposition to hysteria. Treatment, therefore, must be planned in terms both of physiology and of psychology.

5. From the ontogenetic viewpoint exaggerated defenses may be considered as a kind of equivalent to psychosomatic affections. So

long as they are in free play, bodily symptoms tend to be absent or negligible. During such a phase the person is, as he puts it, "well." But when the expression of the defenses is impeded or when they fail as a method of adaptation, the underlying emotional constellation becomes either outwardly expressed in the form of an obvious anxiety state or inwardly expressed in the form of physiological or neurological dysfunction, or it may be expressed both inwardly and outwardly. This synoptic view of defenses and psychosomatic affections has important implications for treatment, since it reveals the problem of the patient to be not (or not so much) a bodily *disease as a disturbance of the "life."* The practical importance of the outlook is most noteworthy when the patient first reports sick, for if attention is paid early not only to the "lesion" (and its treatment in terms of disturbed bodily mechanism) but also to the person, his life situation, and his way of living, much may be effected in preventing the recurrence of the "condition" either in its original form or as an "associated affection."

6. The foregoing matters cannot be appreciated in practice unless consideration is given to the biography of the patient, with special reference to infantile experiences, "personality," the life situation surrounding onset of the illness, and the attitude of the person toward his present and future—as well as toward himself.

LATER PHASES OF EMOTIONAL DEVELOPMENT

PHASE OF SOCIAL PREPARATION (THE "LATENT PERIOD")

During the toddler years the child begins to make contact with a larger society by associating with children other than those from his own family circle. When he attaches himself to this new group he does not at first play communally but "on his own." Gradually, however, he leaves this position on the fringe, "crosses the boundary," and merges himself in the activities of the larger community. Up to the age of seven or so his playmates may be of either sex, but thereafter a boy tends to play with other boys and a girl with other girls.

The years seven to fourteen may be regarded as the primitive tribal phase. The child is a member of a gang which imposes a uniformity of behavior, of language usage, of dress, and even of seasonal ceremonial rites, such as football, cricket, stamp-collecting. When a primitive tribal group is formed it tends to behave as a herd, being subject to apparently unpredictable moods of activity and inactivity, construction and destruction. The child, whether as leader or follower, loses his identity in the group. During this period the child is still dependent on his parents but all the time he is working through his dependence, working through his aggressive destructions and explorations, and working through his impulses to be esteemed and to give affectionate love. At this period, too, or slightly later we frequently find feelings of intense friendship between two boys (or between two girls); or of a boy toward an older hero figure, e.g. older brother—more rarely, a schoolmaster. But this homosexual phase usually passes off as the emotional need to lean on someone of the same sex lessens, to be replaced during the course of the next phase by the need for the opposite sex.

From the psychosomatic viewpoint this phase is a period of consolidation—a latent period during which the chief emphasis of natural psychological growth is connected with the development of the higher cortical activities as revealed in the increasing refinements of muscular dexterity, the growing appreciation of the relations between events in space and time, and an increasing ability for abstract thinking. This period therefore provides a breathing space during which emotional tensions engendered by frustration in the earliest years have an opportunity of obtaining release and expression in further exploratory and intellectual activities. This is also the time of schooling which too often is regarded solely as an age for education in factual information instead of as a time for education for living as an adult in society.

PHASE OF SOCIAL GRADUATION (PUBERTY AND ADOLESCENCE)

The physiological changes of puberty are accompanied by profound emotional changes which mark the end of the long journey of infancy and boyhood or girlhood. Puberty is the first phase of

the transition from dependence on the parents to independence from them. The ego becomes stronger and the individual is more conscious of the differentiation between himself and others. He (or she) also becomes subject to bouts of self-assertion and because this characteristic is sometimes extreme, the years of adolescence have been called the "unbearable age." But they may be even more unbearable to those who are passing through it. Other individuals of his (or her) age group are now experienced as rivals or competitors in love, work, or society. With the unfolding of independence the male begins to feel the impulse to bud-off from the parental biological unit, i.e., to leave home, to secure himself in the world by his own exertions and to love in an adult way by taking a mate and founding a family. The female, however, does not normally experience the impulse to leave home until she is enticed or compelled to do so because of a male to whom she feels attracted.

FIRST PHASE OF MATURITY

The primary phase of maturity begins when the male and female live together as a biological unit and function as adult parent figures. It continues up to about forty years of age. During that time interest and energy are devoted to expansion, work, and creation—not only biologically but also in the fields of things, thoughts, and ideas. In the case of the woman an important part of the work and creation are strictly biological, for it is she who bears the children, runs the house, and nourishes and tends the family. Only by so doing can she harness the deep emotional tides of her being and fulfill this phase of her emotional development adequately—in the absence of some appropriate substitute satisfaction.

SECOND PHASE OF MATURITY

Between the ages of thirty-five to forty-five a new phase of life unfolds. This is the beginning of the second phase of maturity, usually called middle age, when the trend toward continued expansion in social position, in work, in income, is no longer apposite. But the path of life does not then begin to go downhill as many people erroneously believe and fear. Man is unique among

animals in that the reproductive period with respect to gestation does not continue throughout adult life but ceases some thirty years before the human being vanishes from existence. This extra span of living has, therefore, a definite significance for the human species. It is concerned not only (often not so much) with the expansion and welfare of the individual or of his immediate family but also with the maintenance and advancement of society as a whole. With the onset of middle age, therefore, new impulses appear directed toward this end and these take many expressions. Examples of extraverted expressions are joining clubs, attending meetings, acting on committees, participating in politics, etc., whereas examples of introverted expressions are a growing interest in history, philosophy, anthropology, or religion. The second phase of maturity is therefore related to the custodianship of the welfare, customs, and traditions of the larger family of the group and to the acquisition of wisdom concerning man's place in nature and his relationship to God. Those who succeed in living through this stage of life's path are properly recognized as the wise old men and elders of the tribe. Naturally I must add the wise old women also. Hindu civilization sanctioned a particular expression of this phase when it encouraged men who had built up a business and founded a family to leave all behind when they attained middle age and to devote the remainder of their lives to meditation and Yoga practices in the hills or jungle.

The experience of losing one's way on the path of life at the onset of middle age is described by Dante:

In the middle of the journey of our life
I discovered myself in a dark wood
Where the direct route was lost.

These are the opening lines of the *Inferno*, a poem which is the product of (or artistic substitute for) a depressive state during which Dante becomes acquainted with the underworld of his soul where, isolated from all social contact, he experienced feelings of dread, panic, numbness, and sadistic hate associated with images of darkness, moons, fires, ice, reptiles, evil beasts, tortures, etc. After reaching the depths of this hell he is enabled to ascend again

to the surface of the everyday world and to continue to unfold as a creative member of society. In other words after descending into Hades he underwent regeneration, i.e., he again found "the way."

FINAL STAGE

Finally there is the phase of senescence—of extreme old age—which marks the end of independence and the recurrence of complete dependence, this time no longer on the parents but on the children. (In modern times because of the scarcity of children the care of the very old has produced an acute social problem.) The outer world more and more ceases to interest and stimulate, and the days are spent in contemplating the inner world of memories and images so that when death comes it comes easily and naturally and the individual "slips away" from his place in the human procession upon earth.

NOTES TO CHAPTER 6

Clinical experience suggests that when early acquired predisposition is clearly marked, somatic illness may be precipitated in adult life by an external event so trivial in the objective sense that it may be regarded as the equivalent of the straw that broke the camel's back. In such instances the sickness appears in the nature of a "personality disorder" or, as it used to be called, as a "disease of the constitution." If, however, early acquired predisposition is not so marked, somatic breakdown may not occur unless or until the life situation becomes very acutely upsetting, or repeatedly disturbing, or chronically oppressive. In such instances the illness appears more in the nature of a reactive process, i.e., as a mode of response of the "life" to a readily recognizable environmental factor or set of circumstances.

GOOD MOTHERING

During the last half century or so Western technical man has become more and more detached from the instinctual roots of his emotional life, i.e., cut off from the foundations necessary for the building of a mature adult personality. Because they had been prematurely compelled to assume the rigid timetable designed for living, more and more persons came to reject also the "little child in themselves." This internal rejection was associated with an increasing outward rejection of the child by married couples—of not suffering the little children—a phenomenon that has accompanied the increasing appearance of obsessional personalities, i.e., of persons who in earliest childhood were compelled by the increasingly anxious parental milieu to abandon too early their natural primitive infantile satisfactions. For these reasons positive instruction is now often required to enable parents to appreciate that the growth of the child has not only physical but also emotional aspects if the progressive unfolding of each phase of the young life is to be satisfactorily worked through and lived out. Adequate mothering is therefore very necessary to assist in the appropriate unfolding of all the many new activities that arise in the course of the first years of life. The problem therefore arises: What is meant by good mothering? This problem has lately received attention and I am indebted mainly to the writings of Margaret Ribble¹ for the following views on the subject.

THE PRIMARY PHASE

Special emphasis needs to be given to adequate time for sucking and for body contact between mother and child.

Adequate time for sucking. Sucking is important not only as a method of obtaining nourishment but also because it represents the main active contact of the newborn child with its outer environment. If this important means of "taking things in" is frustrated, a smooth and orderly development of bodily activities is im-

¹ Ribble, Margaret (1943), *op. cit.*

peded and physiological dysfunctions tend to occur. Adequate satisfaction of the sucking tendency, however, requires adequate time. This is more readily achieved when satisfactory breast feeding is taking place, but with the introduction and prevalence of bottle feeding the importance of sucking *per se* has largely been ignored. The normal sucking requirements during the first month of life have been estimated to be about two hours per day. This on a four-hour feeding represents an allotment of twenty minutes sucking time per feed. (The twenty minutes includes, of course, the time during which the milk is being ingested.) The importance of sucking has been illustrated even in animal experiment. For example, it has been shown that puppies allowed to receive adequate nourishment, but prevented from continuing to suck, grew up into dogs that showed distinct character differences (especially restlessness) compared with controls from the same litter who had been allowed to suckle normally.²

Adequate body contact As the first few months following birth may be regarded as a direct continuation of the intrauterine state, there is need for continuance of close body contact with the mother to satisfy the requirements of the kinesthetic and muscle senses. This requires that the baby be held firmly, nursed at intervals, rocked, stroked, talked to, and reassured. With the disappearance of the "shawley wife" and the introduction of the perambulator the need for adequate body contact is often forgotten. How readily the infant reacts to the absence of contact is seen when a baby is laid on a flat surface such as a table without other support. Immediately it reacts with a startle and a cry. Mothers who are anxious (from whatever cause) tend when holding a child to hold it loosely or insecurely instead of firmly and confidently, and this to some extent explains the saying that "anxious mothers produce anxious babies," the insecurity of the mother being, as it were, sensed by the child. The absence of accustomed mother contact has a bearing on the problem of "fretting" such as is seen when an infant is removed from home to hospital. Many of us who have been resident medical officers in a fever hospital used to be somewhat

² Levy, D. M. (1928), *Amer. J. Ortho Psychiatry* IV, p. 203.

skeptical of the importance of fretting, but recent observations have shown its reality and its practical importance, in that infants deprived of their accustomed maternal body contact may develop a profound depression with lack of appetite, wasting, and even marasmus leading to death. As a result of these findings volunteer women now attend some of the children's hospitals to provide infants that are fretting with periods of handling, caressing, rocking, etc. (The results are said to be dramatic.) Handling of the infant, however, can be carried to excess so that instead of understimulation there is overstimulation, which also can have upsetting results. Perhaps the commonest method of overstimulating the infant is the insistence on too frequent change of diapers on the grounds of cleanliness. (It has been suggested that diapers should not be changed more than four to six times each day.) Indeed according to psychoanalytic teaching the child actually finds a satisfaction in the feeling of wetness against its body so long as it is not chilled and the skin is intact.

Physiological effects of inadequate mothering. Apart from its instigation to provoke withdrawal (see p. 99) deprivation of sucking and of body contact produces definite physiological effects which include loss of weight, wasting, pallor, air swallowing (often disguised as "wind"), rumination (i.e., swallowing of the food and its almost immediate return) and diarrhea. It may also produce disturbances of behavior such as excessive thumb sucking, head rolling, or masturbation.

THE SECOND PHASE

Frustration at the second phase is usually associated with lack of appreciation by the parents that growth takes time and that development cannot be forced. It is inevitable that a child must be conditioned to the requirements of social life, but it is too often forgotten that the social virtues will appear in the child in their own good time and in their own way. When frustrating forces are applied too early, too harshly, or too intensively, and irrespective of biological rhythms, there may be definite psychological and psychophysiological effects which are maintained into adult life.

THE THIRD PHASE

Frustration at the third or genital phase (which can perhaps be more comprehensively called the early personal phase) is associated with lack of appreciation by the parent that the child is now becoming a person in his own right, requiring both to express affection and to be given attention and affection in return. "The need to be loved and valued is one of the deepest of all human needs and the deprivation of affectionate ties with others is one of the most damaging emotional hurts that a human being can receive."

These considerations throw considerable light on the etiology of many common disorders of infancy. The question, "Why does an infant take ill when it does?" may fail to receive an appropriate answer if investigation is confined only to the physical, chemical, and microorganic factors that it has met, but may receive a revealing and useful answer on directing enquiries to changes in the environment to which the child responds psychophysiologically, i.e., to changes in the "emotions" of the mother. The further question, "What kind of infant is this?" is usually better restated in terms of, "What kind of mother is this?" When we enquire into this problem we may find that she is ignorant; or mentally deficient; or too intelligent, being "all hygiene and science"; or over-anxious and distracted; or even that she has an inner resentment at being a mother, i.e., has rejected the child in herself, and that this resentment is seemingly sensed by the child. (Mothers who resent being mothers have usually resented the behavior of their own mother to them when they themselves were infants.) Answers to these questions enable us to interpret many cases of bodily disturbances in infants and also provide guidance for therapeutic interference that is based on demonstrable "causes."

NOTES TO CHAPTER 9

SOCIAL HEALTH AND THE UNITED STATES

A first step toward assessing the presence and degree of social disintegration in the United States would be to examine the biological indices by asking (1) What is the trend of the birth rate? and (2) What is the trend of the psychosomatic affections? This note does not profess to give complete and studied answers to these questions, since it is based solely on material casually encountered in the course of general reading. Its purpose is merely to draw attention to the need for examining the problem further. The conclusions must therefore be regarded as tentative and even speculative.

MEDICAL INDICES OF SOCIAL DISINTEGRATION
IN THE UNITED STATES

BIRTH RATE

For information regarding the levels and trends of the birth rate in the United States I am indebted to Pearl's book,¹ which provides an analysis of the statistics of the birth-registration area with special reference to the fertility of women of the child-bearing ages.

Between 1920 and 1930 there was a decline in fertility among both the native whites and the Negroes, but whereas the relative decline among the whites was 18 per cent, among the Negroes it was 27 per cent—exactly half as much again. A still greater decline, however, was revealed in a third group, namely that of the foreign-born whites in whom the relative decline between 1920 and 1930 amounted to 39 per cent, i.e., more than double that found in the native-born whites. These findings are illustrated in the following table adapted from Pearl.

¹ Pearl, Raymond (1938), *The Natural History of Population*, Oxford Univ. Press, London, pp. 120, 123, 250, 286.

Percentage of Women of Child-bearing Age Producing Children

Year	Native White	Negro	Foreign-born White
1920	8.2	9.9	12.0
1930	6.9	7.3	7.1
Percentage decline	18	27	39

Pearl discusses these figures and remarks that the idea that the major factor responsible for the decline in the birth rate over those ten years was the increasing efficiency and practice of contraception could scarcely be upheld, especially in the case of Negroes "Anyone who would entertain it does not know much about the general psychology or sex mores of the Negro population . . . and the main burden must surely be placed somewhere else than upon birth control so far as concerns the Negroes . . . The steady decline of total fertility that is going on in the United States both in the population as a whole and in the differential racial classes within it cannot justly be regarded as due solely, or even primarily, to the growing practices of contraception, criminal abortion, or postponement of marriage. . . . *Other and more obscure factors are involved* about which literally almost nothing of a precise and definite character is now known. . . . What is going on appears to be a much more complex biological adjustment or adaptation involving many factors, both immediate and evident as well as remote and obscure. . . . The position of man as a species presents today an extraordinary similarity to that displayed by many others in the palaeontological record just prior to their disappearance from the cosmic scheme of things."

Since these words were written, however, the method of approach called "psychosomatic medicine" (with its concepts of a "psychosomatic affection" and of "biosocial disintegration" that have been derived from its practical application) promises to throw further light on the nature of those "obscure factors" mentioned by Pearl.

The evidence of the birth rate suggests, therefore, that the process of social disintegration between 1920 and 1930 in the United States was marked in both native whites and in Negroes

but was affecting the Negro community with a rapidity which exceeded that of the native whites. The degree of social disintegration within the recent immigrant community was greater than in either, a finding to which reference will be made later.

THE INCIDENCE OF PSYCHOSOMATIC AFFECTIONS

Only two studies are available to me providing figures dealing with the incidence of the psychosomatic affections. The first is that of Rowntree.² This writer analyzed the incidence of certain psychosomatic affections as a cause of rejection in registrants for the armed services and compared the findings in peacetime, i.e., 1941, with wartime, i.e., 1943. Although an interpretation of the findings is difficult, Rowntree concluded that the psychosomatic affections were appearing in increasing frequency both in the white and in the Negro, but that the rate of increase was greatest in the Negro "who in peacetime appeared relatively immune." The following table derived from his data illustrates the position with respect to peptic ulcer, effort syndrome, and asthma.

The table on p. 250 shows that among the whites the rates of increase were indeed substantial. The rates of rise were, however, definitely more marked in the Negroes, with the result that the incidence of psychosomatic affections among them was rapidly tending to approach that found among the whites.

The second source of information available to me is Gafafer's series of statistical studies of incapacitating sickness among approximately 200,000 industrial workers in certain selected establishments.³ The published data have not been arranged with a view to assessing the part played by the psychosomatic affections, but so far as can be judged the figures indicate that incapacitating sickness tended to increase from the early 1930's onward both as regards frequency and average duration in a manner not dissimilar to that which occurred in Britain, although it was somewhat later in appearing. Very outstanding was the increased frequency of the cardiovascular disorders. Thus comparing the year 1945 with 1936

² Rowntree, Leonard (1945), *Psychosom. Med.* VII, pp 1, 29.

³ Gafafer, W. M. (1943), "Absenteeism," a chapter in *Manual of Industrial Hygiene*, W. B. Saunders Co., p 420

the cardiovascular disorders had risen by 150 per cent; "diseases of the nervous system" by about 100 per cent; "all other diseases" by about 130 per cent; "ill-defined causes" by about 100 per cent; "rheumatic diseases" by about 50 per cent.⁴ Without further information regarding age and sex distribution of the population no very definite conclusions can be made.

TABLE SHOWING INCIDENCE RATE PER 1000
REGISTRANTS EXAMINED

	<i>Whites</i>	<i>Negroes</i>	$\frac{W}{N}$ Ratio
PEPTIC ULCER			
Peacetime	3.6	.6	6
Wartime	5.2	1.4	4
Percentage increase	44	133	-33
<hr/>			
	<i>Whites</i>	<i>Negroes</i>	$\frac{W}{N}$ Ratio
EFFORT SYNDROME			
Peacetime	3.7	.8	4.6
Wartime	10.0	4.5	2.2
Percentage increase	170	464	-50
<hr/>			
	<i>Whites</i>	<i>Negroes</i>	$\frac{W}{N}$ Ratio
ASTHMA			
Peacetime	4.8	3.9	1.3
Wartime	8.5	7.8	1.1
Percentage increase	73	100	-16

The indices of social disintegration (the declining birth rate and the rising incidence of psychosomatic affections) available for the purpose of this study refer, unfortunately, to slightly different periods of historical time, the former to the years 1920-30 and the latter to the years 1930-45. But their trends are in agreement that the process of social disintegration is accelerating in the national community of the United States. The indices also show that although the degree of social disintegration still appears greater among the native whites than among the Negroes, it is now beginning to affect the Negroes, among whom its spread is now pro-

⁴ Gafafer, W. M. (1946), *Public Health Reports*, Vol. 61, no. 30, p. 1095.

ceeding at a greater rate than among the whites. If this tendency were to continue, the degree of social disintegration among the Negroes would come to approximate or even exceed that among the native whites. The rapidity of social disintegration is, however—if we may judge from the rate of decline in the birth rate alone—greatest of all among whites who are foreign-born.

. THE UNITED STATES AS A NATIONAL COMMUNITY

The whites. The white population of the United States has been built up over the past three centuries by the importation of representatives of a number of European national groups, each bringing with it its own particular culture, religion, and mores. With the gradual assimilation into the larger community—a process which takes at least three generations⁵—the interpersonal social linkages peculiar to each national group gradually became disorganized. Their members were not, however, left in social isolation, because as the old social psychological bonds dissolved new linkages took their place derived from the expanding total American pattern that was developing and becoming increasingly complex up till the end of the nineteenth century at least. Although the various and diverse imported European communities underwent, therefore, the dissolution of their original social pattern this process did not entail true social disintegration (in the sense in which I have used this term) in that it was attended by a concomitant social reintegration into a larger and expanding pattern. The expansion and elaboration of the American pattern, as judged by its economic indices, began to slacken, however, in the course of the present century,⁶ and since no substitute pattern was forthcoming (or at least established) which would permit of continued renewal and reintegration, the biological effects of social disintegration in the national community accordingly began to appear. This was reflected in the growing disintegration of the family (as

⁵ Mead, Margaret (1942), *And Keep Your Powder Dry*, Wm. Morrow, New York.

⁶ Glenday, R. (1944), *The Future of Economic Society*, Macmillan and Co., London.

revealed by increasing divorce, falling birth rate, etc.) and by growing disintegration of the individual (as was revealed by somatic manifestation of undue psychophysiological sensitivity).

The rapidity with which social disintegration in the United States was progressing between the two world wars is perhaps reflected in the outstanding decline (already mentioned) which took place in the fertility of foreign-born whites between 1920 and 1930. One explanation of this phenomenon might be that by this period of historical time the newer immigrant European groups were not only undergoing the "normal" dissolution of their original social patterns but were experiencing in addition something "abnormal": the dissolution of the total national American pattern as a result of which they were failing to find those fresh linkages whereby "normally" they would have achieved reintegration.

The deterioration of the biological indices of social disintegration was inevitably associated with deterioration of economic and cultural indices. The decline in the economic indices between the two world wars was shown by increasing financial crises, strikes, unemployment, etc., and the decline in the cultural indices was shown by retrogressive phenomena similar to that which had occurred in western Europe and whose nature may be summarized by saying that there was an increasing intrusion of the primitive, the visceral, and the crudely sexual and that this went hand in hand with an increasing intellectualism which was both loveless and devoid of inner wisdom.

The Negroes. Within the nation of the United States there has always been a second nation—the Negroes—whose forefathers were in no sense partakers of the essentially European cultural patterns of the whites. Their mores were a compound of old Africa, Ishmaelitism (hewers of wood and drawers of water), and Evangelical Christianity. During the present century the social emotional bonds which linked them together, and which also isolated them from the "total American pattern," began to break down and social disintegration to set in. Although the level of their birth rate was still higher than that of the whites, the rate of its decline between 1920 and 1930 was greater. In addition the incidence among Negroes of psychosomatic disorders which pre-

viously were regarded as rare began to rise suddenly and abruptly before the outbreak of World War II. The rapidity of the overt emergence of social disintegration in the Negroes compared with its somewhat slower development among the whites suggests that it is spreading among the Negroes not in a chronic but in an acute and "galloping" form.

. SOCIAL DISINTEGRATION IN THE UNITED STATES

BRITAIN AND THE UNITED STATES CONTRASTED

Any adequate discussion of the relation of the degrees and trends of social disintegration in Britain and the United States would require to take into account the many striking differences between these two national communities. Some of the items of difference are:

Size of country. The difference in size and occupied area is overwhelming. The United States is a continent of some forty states, many of which could contain Britain within their boundaries. This factor, however, recedes in importance in these days of modern transport, but until recently the question of size meant that the United States had a still expanding frontier.

Genetic stocks. The various genetic stocks which comprise the population of Britain have been consolidated for centuries. Indeed accretions of imported groups have been minimal since the Anglo-Saxon invasions of the sixth and seventh centuries. In contrast the population of the United States is perhaps predominantly of the third and fourth generations and its traditions are not, so to speak, part of the blood.

Technical equipment. The technical and industrial equipment of the United States far exceeds that of Britain.

Food resources. Britain has to import a large proportion of its food supplies, and to pay for these it must, as a corollary, export manufactured goods, whereas the United States is practically self-supporting and has neither to import nor to export in order to obtain a physical basis for living and surviving. In short, to live, Britain needs to export; but to live, the United States does not need to export.

An interpretation of the course of social sickness in the United States is even more difficult than in the case of Britain. The primary "critical point," namely that at which the birth rate commenced to fall, cannot be readily determined because of the absence of the necessary statistical data. All that can be said is that as in the case of Britain a marked deterioration in social health occurred in the period between the two world wars, but it is difficult to compare the degree of social sickness existing at that time in the two national communities. The level of the birth rate was then somewhat higher in America than in Britain, but on the other hand the incidence of psychosomatic affections was probably as great, if not indeed greater. This is suggested by the finding that in the United States more than one-third of the younger age groups of registrants for the armed services were rejected—as compared to about 15 per cent in Britain—at least one-third of those being turned down officially for "neuropsychiatric reasons." (In any final interpretation of these figures one of the problems needing consideration would be the question of differences in the standards of medical examination in the United States and Britain.) The progressive deterioration of the biological symptoms of social sickness indicated the approach of a "critical" point of some kind and when the war was over its advent was further foreshadowed by the obvious deterioration in one of the economic indices in the form of the epidemic of strikes occurring in 1946. Unlike Britain at that time the national community of the United States had not expressed conscious political acceptance of the breakdown of the old social patterns and though mass unemployment had not yet appeared, the feeling that "postwar recovery" was being retarded because of the growing threat of "causes from without"—notably in the form of Russian expansion—was being increasingly experienced.

One development in the United States which seemed fairly certain in view of the trend of its biological indices of social sickness was the emergence in the not too distant future of a serious Negro problem which (inevitably) would be attended by well marked economic, political, and cultural repercussions.

NOTES TO CHAPTER 10

THE INCIDENCE OF PSYCHOSOMATIC AFFECTIONS
IN UNDERGROUND MINERS

The first part of this account is based on clinical observations on individual miners in Scotland during the 1930's, and the second part on the figures provided by the *Report on Morbidity Statistics for the Insured Population of Scotland for the Annual Period 1933-34*.

PART I: CLINICAL OBSERVATIONS

For eight years before the outbreak of World War II, I acted as a Medical Referee under the National Health Insurance Act and during this time examined over 20,000 persons who were receiving sickness benefit, with a view to assessing their "capacity for work." This experience provided a unique and synoptic view of morbidity and disablement—especially of illnesses of several months' duration—among workers of all kinds in the industrial and agricultural areas of southwest Scotland. As regards occupation, I early obtained the impression that psychoneurotic disturbances and psychosomatic affections were particularly frequent as reasons for incapacity in underground miners. To test this impression I made a special examination of 200 miners of ages under forty-five who consecutively appeared before me, and compared the findings with those of 200 consecutive other males of corresponding age seen during the same year. The results were striking. Of the miners, 128 (i.e., 64 per cent) were disabled because of psychoneurotic and psychosomatic affections, whereas of the nonmining males only 76 (i.e., 38 per cent) were so disabled.

The following notes elaborate some of the clinical and etiological problems involved.

ON PSYCHOSOMATIC BODILY DISTURBANCES IN MINERS

Anxiety states. In miners, as in the insured working population generally, the commonest manifestation of psychoneurosis as a cause of disablement was an anxiety state. The complaints were numerous and varied. On examination, the patient's expression was strained, wearied, or worried, and the face might be pale or show blotching. Miners who showed marked pallor were often certified by their practitioners to be suffering from *anemia*, though blood examination was normal. If weakness was also a complaint the label became *anemia and debility* or *debility*. Other common bodily signs included the classical tachycardia, tremors, brisk knee jerks, visceroptosis. As distinct from male workers in most other occupations, miners were unusually prone to show, in addition, those other bodily manifestations which are usually described as "hysterical." I found the term "anxiety hysteria" useful to cover this mixture of the bodily signs of anxiety and hysteria.

Anxiety hysteria. The commonest hysterical symptoms apart from vertigo were referable to the respiratory, gastrointestinal, and locomotory systems. In the first, rapid breathing and spasmodic coughing were common; in the second, air swallowing and from time to time a complaint of pain in the lower abdomen mistaken for appendicitis. (I remember a surgeon in a hospital in a mining area asking me if I could explain why 50 per cent of the cases of appendicitis on which he operated showed "a healthy appendix"!)

In the locomotory system, common complaints were loss of power, numbness and tingling, inability to move a joint, and, most frequent of all, excruciating pains with no discoverable organic basis. This "hysteria simulating rheumatism" was usually labeled by such terms as *sciatica*, *lumbago*, *fibrositis*, *neuritis* or, more usually, simply *rheumatism*.

Pure hysteria. In miners, also, "pure hysteria" was not infrequent. In such cases the facial expression was devoid of anxiety and could be described by such terms as detached, calm, pleasant, carefree—in short, pathologically cheerful. In this group the commonest single hysterical symptom was that of severe pain. As soon

as the site of the complaint was touched, the patient would grimace, blow, yell and struggle; yet by distracting his attention or by the aid of suggestion, the part could often be readily handled or freely moved. In these cases thudding of the aorta in the epigastrium was often marked and with the aid of a pin, typical hysterical zones of anesthesia could be readily induced. But it was easier to induce an area of anesthesia than to remove it!

An unusual prevalence of anxiety hysteria and pure hysteria was also noted in other "dangerous occupations," such as in workers at heights (typically steeple jacks, steel erectors, slaters, window cleaners) as well as in workers at explosive factories.

Accidents and septic inflammations of the skin. It is unfortunate that although these two labels provide the most frequent "reasons for incapacity" among miners it was not possible to apply a psychosomatic method of approach in such instances because miners with accidents and skin diseases seldom appeared before the medical referee who acted under the Insurance Act. With respect to both these labels the question of monetary compensation often arose and miners with these forms of disability were examined by a different Medical Officer, who operated under the Workman's Compensation Act.

Fibrositis and "rheumatism." The application of a psychosomatic approach illuminated much more than the not infrequent cases of hysterical pain, stiffness, or contracture. It threw light on the reasons for recurrence of many attacks of "rheumatism" that occurred during emotional upset and whose symptoms attached themselves to an "inferior site," as in the locus of an old injury. These happenings were distinct from "pure hysteria" in that their appearance was attended by the emergence of organic "fibrositic" changes. "Fibrositis" in response to emotional upset also occurred, however, in cases in which no obvious previous history of trauma could be obtained. A fuller discussion of the psychosomatic aspects of rheumatism has been given by me elsewhere (*see p. 73*). In any consideration of nonarthritic rheumatism in miners, full justice, however, must be given to the actual physical effects of the environment of the pits, not only the wet working places and the rapid

changes of temperature which induce perspiration alternating with chilling, but also the effect of unnatural attitudes and strained postures maintained for prolonged periods.

ON PSYCHOSOMATIC ILLNESS IN MINERS

Respiratory

1. *Chronic bronchitis.* Physical environmental factors, e.g. dust, fumes, drafts, must always be fully considered as etiologically relevant in bronchitis, but the fact that "emotion" can induce a secretory neurosis of the bronchi is undoubted. A primary attack of "recurring bronchitis" in adult life sometimes seems to be a reaction to psychological upsets; certainly chronic or recurring attacks are often only to be understood when a psychosomatic approach is adopted.

The reasons for the selection of the bronchi as a site of psychosomatic manifestation probably include heredity—we know that some families tend to be "chesty"; sometimes there is evidence of an old "inferiority" in the form of previous damage to lung tissue; sometimes the secretory neurosis seems to express a rationalization of exposure, real or imaginary, to dust, fumes, chill, etc. It is certainly useful in a general way to regard the disturbance of the breath as representing a disturbance of the "life." The practical value of this analogy is further illustrated by the faulty method of respiration shown by those patients who, during inspiration, draw in the abdomen, whereas during expiration they thrust it out—the converse of "natural breathing." (A similar fault in breathing is found in the majority of persons suffering from psychosomatic affections.)

Sometimes patients with "bronchitis" experience considerable benefit by the following procedures: (a) inducing the patient to "cough up" his difficulties and resentments; (b) explaining to him the association between his bronchitis and his emotional life; (c) reassurance about the absence of organic disease; (d) breathing exercises designed to rectify the faulty methods of respiration.

2. *Asthma*. A primary onset of asthma in miners was frequently found to occur after the patient had undergone a particularly dangerous experience involving a clear-cut threat to life.

Cardiovascular

Effort syndrome. Functional complaints referable to the heart were common, and were covered on certificates by such labels as cardiac debility and disordered action of the heart. The more modern term "effort syndrome" was seldom used by practitioners.

Gastro-intestinal

1. *Peptic ulcer*. The emergence of peptic ulcer during emotional stress connected especially with anxiety concerning occupation, finance (and on several occasions following bereavement) was frequently noted.

2. *Gastritis*. A common label for miners who complained of digestive disturbances was "gastritis." Further investigation showed that a number of these were really examples of peptic ulcer, but the majority who appeared for examination under this label had no ulcer and many had an obvious anxiety state. The symptoms were numerous and varied and in some individuals might have been attributable to the so-called stress dyspepsia, in view of the hurry and rush required in modern mining life as well as the unduly short break allowed for eating the carried "piece" which miners brought to their work.

3. *Gastroptosis*. This was common in anxiety states, yet from time to time one saw a patient with his stomach in his pelvis who had no complaints referable to the abdomen.

4. *Hemorrhoids*. Severe attacks of hemorrhoids were frequently noted as episodes in recurring depressive states.

ON THE EVENTS PREDISPOSING TO PSYCHONEUROTIC AND PSYCHOSOMATIC BREAKDOWN

Environmental happenings which were noted to predispose to and precipitate breakdown might for convenience be described as belonging to one or more of the following four groups:

1. Difficulties in personal relationships, e.g. marital incompatibility, illness, death, or misconduct in a member of the family, disappointment in love.

2. Economic and financial difficulties.

3. Difficulties relating to unemployment, including change of employment, loss of employment, disagreement with foreman or overseer, etc.

4. Knowledge and fear of accident and "disease."

The first two groups which concern difficulties in personal relationships and in economics, being common to most men, require no special discussion here. Groups 3 and 4, however, have a special significance in relation to miners.

Difficulties Regarding Employment

1. *Wet workings.* Among miners, a common precipitating cause of breakdown was a change from a dry working to a wet one. Wetness leads not only to considerable physical discomfort (and suggests ideas of chills and rheumatism) but also, by rendering working more difficult, reduces output—"instead of shoveling coal you find yourself shoveling water." If a miner is working for a contractor, he is expected to provide a certain amount of coal daily, and if the workings are wet or unexpectedly difficult in other ways he may fail to attain his quota and as a result have to argue about his pay, which in turn induces feelings of impotence and anger. The emergence of rheumatism in a miner in wet workings cannot always, therefore, be attributable to his environment in its physical aspect alone—a finding which is borne out by the psychological investigation of individual sufferers.

2. *Change of form of employment.* An example of the effect of change of employment was noted in men who, having become accustomed to work on the surface, were compelled because of lack of work there to take up or return to underground mining. Complete loss of employment also predisposed to or precipitated breakdown in many cases.

3. *Accidents in the pit.* A clear-cut precipitating factor was sometimes the occurrence in the pit of a serious accident which induced, in other workers, incapacitating psychoneurotic illness. It is a com-

mon experience, for example, that after an explosion in the mines, the absenteeism rate rises sharply.

Knowledge and Fears of Disease and Injury

A person who is anxious, worried, or apprehensive from whatever the cause is influenced readily by suggestion and is liable to be affected by fears of disease, disablement, or destruction. Among miners such fears may be regarded in their two categories—conscious and unconscious.

1. *Conscious fears.* One of the diseases most commonly feared was that of "chills" and "rheumatism." This was especially prevalent among those engaged in wet workings. Next to this was "fear of the chest" which was suggested by the presence of foul air, gases, or dust. Another fear was that of "blindness," suggested by darkness and by knowledge of nystagmus. Fear of bodily injury was, however, seldom admitted by any regular miner but it was admitted by males who, having begun their working career in the pits, had left it for other occupations. "I left the pits because I didna' like them. Oh, ay, if you want to know, I was feared." This fear was also sometimes admitted by surface workers who soon after taking a job underground had become incapacitated by a psychoneurotic disorder in one of its many aspects.

"Knowledge" about diseases, whether gained by conversation, unofficial health propaganda in newspapers, or by studying advertisements for patent medicines, may color the symptomatology as the result of suggestion. The influence of this is illustrated in the following extract from a letter written by a practitioner in a mining area.

"There are fashions in these disorders. A number of years ago nystagmus was very popular but this has gone out of fashion as a result of a number of influences. As nystagmus declined, its place was taken for a while by an epidemic of "strained backs" but this in turn was supplanted by gastritis. Certain advertisements for a famous stomach powder, which stressed the danger of stomach disorders and provided a kind of a pseudo-pathology, created among many miners the conviction that they must be suffering from gastric or duodenal ulcer."

2. *Unconscious fears.* The fears which arise from the threat of the mining environment to the tendencies toward bodily preservation remain, however, largely unconscious. The existence of such fears is not infrequently revealed in anxiety dreams. Accounts of these were secured among miners disabled by psychosomatic "organic diseases" as well as those disabled by "functional disorders." Perhaps the commonest dream was that of "falls," i.e., the fall of earth or rubble which makes a great noise from which miners have to run for safety. Another common dream was that of "runaway hutches," i.e., the buggies which run on rails may become detached and, if the rail is on an incline, run amok down the slope, causing havoc and injury. Another was that of the "cage slipping," the cage being the elevator which takes the miners down to their work. As a rule, mining patients do not care to narrate these dreams, and when they were persuaded to do so, they related them in a shame-faced or off-hand way. From their manner it was evident that they were afraid of being afraid, or in other words, such fears were constantly being repressed. Some miners told me that they suffered from these anxiety dreams only after the occurrence of an actual accident, fall, or explosion in the pit. I also noted that such dreams were narrated much more readily by workers who were no longer miners but had left the pits to take up another occupation. On the other hand, I met several workers who had abandoned the pits and who stated that when they dreamt of the mines their dreams were always pleasant. One of these explained to me that the pits "had a strange fascination" and when he thought of them he thought chiefly of "the comradeship of the men."

ON PSYCHOSOCIAL BARRIERS TO RECOVERY

The following case may be quoted to illustrate the development of illness in response to a threat to self-preservation, the purposive nature of the illness which removed the patient from a working situation which had become intolerable, and the effect on the maintenance of symptoms of socioeconomic factors.

In November, 1936, a practitioner from a mining area asked me to examine one of his patients—a miner—who had been on the sick list from June 1 with asthma. This had been his first attack. As

regards etiology of onset, this man while working underground during the second week of May was cut off by a fall with associated fire. To save his life he had to crawl underneath burning fragments and his clothes were badly burned, although he escaped bodily injury. He felt "awful" after the accident. Because he was engaged on a contract which had to be finished by the end of the month, he struggled on at his work, although daily he noticed an increasing disturbance in his breathing in the form of breathlessness and panting. When his contract was finished he saw his doctor, who put him on the sick list with a diagnosis of asthma.

On examination, the man was anxious-looking and had well-marked clinical asthma. He described his experiences in the pit with a good deal of emotion. I pointed out to him the relationship between a "threat to the life" and a disturbance of the breath of life. He was intelligent and appreciated the possible connection, but he emphasized that he could not, in his present state, possibly return to the pit. I accepted this, and the remainder of the interview was devoted to discussing his particular social dilemma. If he attempted work on the surface his pay would be reduced and he would not be able adequately to support his wife and family—he was, in fact, already in debt. If he applied for work other than that of mining, he would lose his house which was the property of the mining company and no other accommodation was available in the district. If he went "off the sick list" and registered as an able-bodied unemployed person, his rate of remuneration would be considerably lower than what he was obtaining from sickness sources. These social obstructions suggested that the outlook was not good but his previous health record had been satisfactory. In the light of the social situation, further analysis seemed to be unprofitable and I told the practitioner that the man would have to be left to his own resources, but it should be constantly emphasized that his illness was related to his emotional disturbances.

I did not have much hopes of this man returning to his usual occupation, but as a matter of fact he did return to the pits three weeks later, and two years after that when I heard of him again he had been constantly at work.

CONCLUSION TO PART I

Examination of individual miners suggests that the "dangerous environment" of the pits induced in many of them a state of chronic repressed emotional tension which predisposed to the occurrence of psychosomatic breakdown. This was often precipitated by intercurrent sources of upset (personal, financial, or occupational). It also rendered many miners peculiarly liable to accept suggestions that they were suffering from specified diseases. In individuals disabled by the bodily disturbances of hysteria the illness was frequently noted to serve a "blind purpose"—in this case that of escaping from a working environment which had been experienced as becoming increasingly painful, distressing, or threatening.

PART II: STATISTICAL OBSERVATIONS

Before examining the *Scottish Morbidity Statistics* dealing with the incapacitating disorders of miners it is as well to recall some of the features of the physical environment of the pits. Those are summarized in the following table which isolates certain factors of the physical environment of the mines and indicates the type of somatic response which each might be expected to produce.

<i>Physical Factors of Mining Environment</i>	<i>Possible Somatic Response</i>
1. The location underground with "earth for sky" associated with the liability of falls of rubble, rock, etc.	Injuries.
2. Darkness.	?Visual disturbances; increased risk of accident.
3. Dampness and wet.	Rheumatism; "chills"; skin maceration.
4. Rapid variations in temperature and drafts.	Rheumatism; chills; and catarths.

<i>Physical Factors of Mining Environment (cont.)</i>	<i>Possible Somatic Response (cont.)</i>
5. Gases.	Bronchitis; ?anemia.
6. Dust and small particles.	Respiratory affections; sepsis of skin.
7. Narrow tunnels and crevices.	?Rheumatism; ?hernia; ?varicose veins.
8. Equipment of mining, e.g. cages, hutches, machinery, compressed air drills, explosives, etc.	Injuries.
9. Carried pieces of food eaten in a short interval.	Gastric disturbances.

ON THE HIGH RATES OF INCAPACITATING SICKNESS IN MINERS

Having regard for the physical aspects of such an environment, high rates of incapacitating illness are clearly to be expected. Confirmation is provided by the *Scottish Morbidity Statistics Report* published in 1935 which analyzes the sickness returns of miners during the three years from July 1, 1930 to June 30, 1933. This analysis shows that the frequency of "cases of incapacity" (i.e., periods on the sick list) was more than twice as great in miners as in males who belonged to other occupations. Thus for every 1,000 miners there were 405 such cases in each annual period, whereas in every 1,000 males who were not miners there occurred only 190 cases. Although the average duration of the periods of "incapacity" was practically the same in miners as in nonminers, the time lost each year through sickness was twice as great in miners. The kinds of sickness from which miners suffered were, however, not substantially different from those occurring in nonminers, the most striking difference being in the higher rates that obtained. This is shown in Table III.

TABLE III, SHOWING ORDER OF FREQUENCY OF THE
PRINCIPAL REASONS FOR INCAPACITY IN MINERS
AND IN NONMINING MALES

Miners		Other Males	
Influenza	9,487	Influenza	4,261
Accidents	6,346	Rheumatism	2,543
Rheumatism	5,658	Accidents	2,326
Sepsis and skins	4,678	Upper respiratory	2,031
Upper respiratory	2,544	Skins	1,971
Bronchitis and pneumo- nia	2,446	Bronchitis and pneumo- nia	1,391
Gastritis	2,330	Gastritis	1,141
Diseases of veins	413	Infectious diseases	311
Appendicitis	373	Diseases of veins	239

The figures refer to rates per 100,000

The question now arises: Do the official statistics reflect the high incidence of psychosomatic affections in miners suggested by the examination of those referred under the Insurance Act? If so, we should expect, in view of the considerations mentioned on page 86, to find this revealed by an undue frequency of the labels known to cover psychosomatic affections and/or by an excessive incidence of sickness in the younger age groups. Data dealing with *chronic* sickness among miners are, unfortunately, not available.

Turning to Table IV, which indicates the disease labels showing a greater frequency in miners than in nonminers, we see that an excessive rate in miners is highest with respect to accidents and sepsis of the skin. But we see, too, that *rheumatism*, *anemia*, *gastritis*, and *disordered action of the heart* are more than twice as frequent in miners as in nonminers, and the labels *cardiac debility*, *bronchitis*, and *debility* more than one and a half times as frequent. Data indicating the age distributions of these excesses are not provided by the official statistics, but some light is provided upon this in Table V.

TABLE IV, SHOWING THE "DISEASE LABELS" HAVING A
RATE OF INCIDENCE HIGHER IN MINERS THAN IN
WORKING MALES WHO WERE NOT MINERS,
AND INDICATING THE RATIO OF EXCESS
WITH RESPECT TO EACH DISEASE

$2\frac{1}{2}$ -3 times	2-2 $\frac{1}{2}$ times	1 $\frac{1}{2}$ -2 times	1-1 $\frac{1}{2}$ times
Accidents (2.7)	Rheumatism (2.2)	Cardiac debility (1.8)	Upper respiratory affections (1.3)
Sepsis and inflammation of the skin (2.6)	Influenza (2.2)	Bronchitis and pneumonia (1.8)	Gastric and duodenal ulcer (1.2)
	Anemia (2.1)	Diseases of the veins (1.7)	Appendicitis (1.2)
	Gastritis (2)	Defined skin affections (1.6)	Hernia (1.1)
	D.A.H. and Tachycardia (2)	Debility (1.5)	Neurasthenia (1.1)

TABLE V, SHOWING THE RATIO OF EXCESS OF CASES OF
INCAPACITY IN MINERS AS COMPARED TO NONMINERS
WITH RESPECT TO INCIDENCE AND TO THE PERIOD
OF TIME SPENT PER INDIVIDUAL ON THE
SICK LIST DURING THE YEAR

Incidence Rate per 1000			Days Spent per Individual on Sick List per Year			
Ages	Miners	Others	Ratio of Miners to Others		Ratio of Miners to Others	
			Others	Miners	Others	Others
-24	434	188	2.3	18	4	4.5
25-29	446	174	2.6	13	6	2.2
30-34	413	197	2.1	15	7	2.1
35-44	426	188	2.3	18	8	2.3
45-54	390	186	2.1	21	9	2.3
55-59	349	202	1.7	28	13	2.1
60-64	268	223	1.2	58	31	1.9
All ages	405	190	2.2	18	9	2.0

From Table V we see that the frequency of cases of incapacity for all ages was 2.2 times greater in miners than in other working males, the magnitude of excess being highest in the younger age groups—2.3 and 2.6 times for age groups under 29. The findings are even more remarkable with respect to the number of days spent on the sick list throughout the year, the excess in miners under twenty-four years being actually 4.5 times greater than in coeval youths belonging to other occupations. That the ratio of excess with respect to the frequency of incapacities and to the duration of time spent on the sick list was so strikingly greater in the younger age groups among the miners than among the nonminers is a very signal finding which can only “make sense” when a psychosomatic approach and a psychosocial approach are included in the range of observation and discourse.

ON THE INTERWAR RISE IN THE PREVALENCE OF PSYCHOSOMATIC AFFECTIONS IN MINERS

No official statistics exist whereby a measurement can be given to the rate of rise in the incidence of psychosomatic affections in miners that occurred concomitantly with their increase in the population generally, apart from those in the special instance of nystagmus (*see* p. 77). Experienced clinical observers in the mining districts, however, have commented on the change in the nature of the incapacitating illness from which miners suffer. Dickson¹ who was in general practice for a period of over thirty years in a mining district in Fifeshire drew special attention to the greatly increased frequency of certain of these diseases compared with the times before World War I and he noted particularly the remarkable rise in the number of cases of gastric disorders and of neurosis—the “so-called neurasthenia.” He ascribed these changes in the nature of his clinical material to two main factors—altered working conditions and altered “social factors.”

¹ Dickson, D. E. (1936), “The Morbid Miner,” *Edin. Med. J.* XLIII, p. 696.

CONCLUSION TO PART II

The frequency of psychosomatic affections during the twentieth century appears to have increased among miners at a rate greater than among the male population generally so that by the 1930's their incidence was definitely higher in miners than in workers who were not miners. The rate of increase seems to have been greatest among the younger age groups in that the ratio of excess with respect to frequency of incapacities and to the period of duration on the sick list was outstandingly high in young miners. The decline in this aspect of the health of the miners took place at a time when the environment of the pits considered physically was progressively "improving," and requires for its interpretation the incorporation of a psychological approach in the field of discourse.

Shortly after finishing the writing of this chapter, I noticed in a Scots newspaper a short account of a small mine in mid-Scotland in which the twenty-two miners employed had produced an average amount of coal per man-shift several times in excess of the Scottish average in general. Although this high output was probably attributable to a variety of reasons the article interested me because it epitomized very neatly some of the conditions that do favor high output. It was as follows:

"This mine has held the highest figure per man-shift among Scottish mines for some time. It was started only three years ago when work was reopened on three seams which were abandoned more than a hundred years ago. An official said yesterday, 'Our lads can do it because they are a contented and informal little crowd who settle any differences among themselves. We carry out trouble-free mining here.' The manager is just 'John' to his men who all know each other by their Christian names. Every morning they travel five miles to work in the same bus. They eat together, boil their tea cans over the same fire. Five of the workers are Bevin boys. The oldest told our reporter, 'We use hand picks here and have no cutting machines. It's hard work but we're used to it. Besides we're a happy crowd.'"

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